

*Arthur Stupka*

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UNITED STATES DEPARTMENT OF AGRICULTURE  
MISCELLANEOUS PUBLICATION No. 188

MACROLEPIDOPTERA AND THEIR PARASITES  
REARED FROM FIELD COLLECTIONS IN  
THE NORTHEASTERN PART OF  
THE UNITED STATES

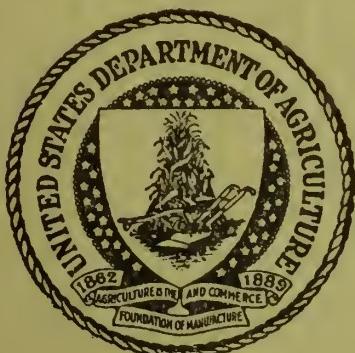
By

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and

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Division of Forest Insects, Bureau of Entomology



WASHINGTON, D.C., JULY 1934



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**CONTENTS**

	Page	Page	
Introduction	1	Methods of handling material	4
The insect lists	2	Host-parasite list	5
Miscellaneous Diptera	3	Parasite-host list	106
Hyperparasitism	4	Index	156

**INTRODUCTION**

This publication is the result of studies begun in 1915 at the Melrose Highlands, Mass., laboratory of the Bureau of Entomology to determine the native hosts of the introduced parasites of the gypsy moth (*Porthetria dispar* L.) and the brown-tail moth (*Nygma phaeorrhoea* Don.), and to determine the possible effect of these parasites on the native hosts. During the period from 1915 to 1929, inclusive, a large amount of material, including macrolepidoptera and microlepidoptera, Tenthredinoidea, and some Coleoptera, was handled in these experiments and a great number of native parasites were reared. In addition to the valuable information gained for which the project was organized, much also has been learned about the native Lepidoptera and their parasites. An important contribution is the number of species of parasites reared that are new to science. Incidentally, 12 new species of Tachinidae and 21 of Hymenoptera have already been described, and many more await description.

The purpose of this publication is to present a resume of data obtained from the studies of macrolepidoptera and their parasites so that it will be available to investigators, teachers, and students of biological control, as well as to others interested in the subject.

<sup>1</sup> The authors are indebted to so many individuals for assistance given in so many ways that it is impossible to make a complete acknowledgment of all the contributors. Definite acknowledgments, however, are made to A. F. Burgess, who organized and encouraged this project; to C. W. Collins, in charge of the Melrose Highlands laboratory of the Bureau of Entomology, under whose general direction this work was performed; to T. H. Jones, for advice and helpful suggestions; to M. T. Smulyan, who conducted the rearing work in New Jersey for 2 seasons; and to all other members of the laboratory staff for making collections and assisting in various ways. They are especially indebted to C. F. W. Muesebeck, who is responsible for the identification of the Hymenoptera, and to R. T. Webber for the identification of the Diptera, and also to the taxonomists of the Bureau of Entomology, located at the U.S. National Museum, who assisted them. To Carl Heinrich and F. H. Benjamin, of the Bureau of Entomology, the late H. G. Dyar, and the late F. H. Mosher the authors owe much for assistance in the identification and verification of the macrolepidoptera.

The Division of Preventing Spread of Moths, Bureau of Entomology, in operation at the time this work began, was divided into three distinct activities: (1) The quarantine and inspection service, (2) the scouting and extermination work, and (3) the research projects. All employees in the field were instructed to collect and send to the laboratory any interesting larvae that they found in the course of their duties.

When the Plant Quarantine and Control Administration was established, July 1, 1928, the research projects were transferred to the Division of Forest Insects of the Bureau of Entomology, under F. C. Craighead, with C. W. Collins continuing directly in charge of this research work. The cooperation has continued as heretofore, and each year the men working in the field have sent many collections of insect material to the laboratory. Representatives of the several State organizations throughout the gypsy-moth-infested area and many of the local superintendents of moth work and tree wardens in Massachusetts have cooperated by sending in material from time to time. As the result of this cooperation of the various agencies, an abundance of material was received from widely scattered localities throughout the Northeastern States.

To obtain data on dispersion of some of the introduced parasites, more especially *Compsilura concinnata* Meig., some special trips have been made from the laboratory to obtain collections of larvae outside of the gypsy-moth-infested area.

From the foregoing the unusual opportunities offered for procuring material from New England, New York, New Jersey, and eastern Pennsylvania can be readily appreciated.

The insects were received in all larval instars from newly-hatched to full-grown larvae and occasionally in the pupal stage. Many of the species were received during periods of abundance or during local outbreaks; often, perhaps, at a time when their parasites were at a low ebb. It must be understood also that many collections were received in a stage too early for attack by certain of their parasites, and other collections were made too late to obtain the parasites that issue from the earlier instars. Few pupal collections were received, so the parasites which normally attack their hosts while in the pupal stage are poorly represented in the lists.

Insufficient material, in many cases, undoubtedly was the reason for the absence of parasites or for the fact that only a small number were secured from some of the host species.

Anyone having had experience in rearing insects will readily understand the difficulties encountered in handling so many larvae and of such varied types. There were some losses due to faulty methods of handling, to improper hibernation conditions, and, in no small degree, to disease.

## THE INSECT LISTS

The host-parasite list, as summarized, includes under each host species (1) food plants;<sup>2</sup> (2) occurrence (this includes the specific localities from which it was received, except in the case of common

<sup>2</sup> The common names used for the trees were adopted from the following publication: SUDWORTH, G. B. CHECK LIST OF THE FOREST TREES OF THE UNITED STATES, THEIR NAMES AND RANGES. U.S. Dept. Agr. Misc. Circ. 92, 295 p. 1927; and those for the shrubs and plants from the following: BRITTON, N. L., and BROWN, A. AN ILLUSTRATED FLORA OF THE NORTHERN UNITED STATES, CANADA AND THE BRITISH POSSESSIONS FROM NEWFOUNDLAND TO THE SOUTHERN BOUNDARY OF VIRGINIA . . . Ed. 2, rev. and enl., 3 v., illus. New York. 1913.

species, in which case the States only have been listed, and also includes any accumulated data on its importance as a pest); (3) totals received (listing the number of collections, the number of larvae, and the number of years it was represented in the collections); and (4) monthly occurrence of larvae, pupae, and adults (after each of these stages are listed the periods of occurrence, by months).

This will give the reader an idea of the geographical range of the collections and indicate whether the species had been generally common over a period of years or had appeared in abundance for only one or two seasons.

All this information is based on data received with the field collections or from observations and rearing records made by the laboratory staff. Further rearings, in many cases, may prove that the periods of occurrence of the different stages mentioned are not broad enough, and that the food-plant lists may be increased for certain species.

Although much has been written regarding food plants and the periods of occurrence of larvae, pupae, and adults in the field, it is the writers' belief that many of the data given herewith have not been published and that they should help materially to make the information on the subject more complete.

The actual number of specimens of each parasite reared from the collections is given in the host-parasite list whether or not the species is gregarious, except in the case of certain hymenopterous parasites which normally issue from a single host individual in large numbers. Such parasites usually fill the body of the host with their pupae or issue from the host as larvae and form cocoons more or less in masses. In each of these cases the number of parasitized hosts has been listed, the figure indicating the number being preceded by an asterisk.

The number of years each species of parasite has been recovered, the number of collections of the host that have produced the parasite, and the number of host larvae that were in the collections from which the parasite issued, have been given in order to show the prevalence of that particular parasite from year to year and also to show its relative importance.

Under each parasite in the parasite-host list has been given: (1) the hosts from which it was reared; (2) the localities from which its hosts were received (except in the case of a parasite that was quite general in distribution, in which case the States only were listed); (3) the months in which the adults are known to occur; (4) the number of specimens per host; (5) the number of generations; (6) the stage in which it hibernates, and occasionally other incidental information.

## MISCELLANEOUS DIPTERA

Occasionally specimens of Muscidae, Anthomyiidae, and Sarcophagidae have been reared from the field-collected material, some of which had been obtained in the pupal stage.

Only species that are unquestionably parasitic have been included in the list. Their status in this respect has been doubtful in the cases of some of the species that have been reared. With the exception of *Muscina stabulans* Fall., they have been recovered only on one or two occasions. Although *M. stabulans* has been reared from several hosts, and the writers believe that it is sometimes parasitic, the records indicate it is unimportant in this capacity.

## HYPERRASITISM

The parasite cocoons or puparia which developed after the arrival of their hosts at the laboratory were never exposed to the secondary parasites which would normally attack them in that stage, and any species of secondaries reared from them must have attacked the primary parasite while within its host and prior to the time of collection. It is evident that the numbers of these would never approximate the natural hyperparasitization in the field, so although many species of secondaries were reared they have not been included in the present list.

## METHODS OF HANDLING MATERIAL

It has been customary to supply the regular collectors with mailing tubes and note slips. The data requested with each collection have been as follows: State, town, date of collection, name of collector, food plant, abundance, degree of defoliation, approximate area infested, and any other data of interest.

On receipt at the laboratory the larvae were counted, identified if possible, and placed in suitable containers for rearing. Since most of the material is received in the larval stage it is important to identify the insects in that stage, especially when a solitary larva or a collection containing only a few individuals is received, since parasitization or death from other causes would prevent determination were this deferred until the adult stage was reached.

Usually, when a species was received for the first time, one or two representative larvae were inflated or placed in a preserving solution for future reference. The inflation of larvae, especially of the macrolepidoptera, has proven most satisfactory for the purposes of this investigation. The several hundred inflated larvae now in the laboratory collection are invaluable in the identification of such species as appear in abundance only at long intervals, and of solitary larvae which never seem to be found commonly.

The type of cage used depended upon the number of larvae and whether or not they required soil for pupation. Larvae not requiring soil were placed in wooden trays with cloth bottom and glass top, pasteboard boxes, small tin cans, or glass jars. Those that required soil were placed in glass-covered metal trays with at least a part of the bottom covered with fine-mesh wire, or in various types of glass jars and tin cans into which had been placed soil or peat moss to a depth depending somewhat upon the size of the container. Each collection of larvae necessarily had to be supplied with its proper food and given care throughout the larval instars, and then examined regularly for adult issuance. Late in the fall, after all possibility of adult issuance had passed, the containers with the hibernating material were stored in a cool place where temperature fluctuations were slight. In recent years a stall in a cement garage has been used for this purpose. The material had to be examined regularly for issuance during the spring, and a few species required examination throughout the entire summer.

Adults of the Lepidoptera needed for identification or for the collection were killed as soon as they emerged and were spread while fresh.

When rearing cages containing soil were used, parasite cocoons and puparia were usually left undisturbed until the issuance of the adults; but in the case of cages without soil, the cocoons or puparia were usually removed as soon as practicable after they had become fully formed.

Certain species of *Hyposoter* and many of the Tachinidae whose cocoons or puparia normally pass the winter in the ground have been successfully carried through hibernation in glass cylinders with bottoms of plaster of paris and with clean sawdust as a substitute for soil. The cylinders were from 1 to 3 inches in diameter with the bottoms filled with plaster of paris from one half to three fourths inch in thickness. The tops of the cylinders were covered with cloth held in place by rubber bands, except in the case of the smaller sizes, for which cork stoppers were used. The centers of the corks had been bored out and the holes covered with fine-mesh wire screen for ventilation. These cylinders were placed on a screened rack which was suspended over a pan of water. However, many tachinids, such as species of the genus *Winthemia*, hibernate as full-grown maggots and usually do not pupate successfully unless supplied with soil.

Glass vials have been found satisfactory as issuance containers for most of the species of parasitic Hymenoptera considered in this publication. The issuing adult parasites were cared for as follows: The Diptera and larger Hymenoptera were killed, immediately pinned, and given a temporary label bearing the rearing number and the date of issuance. The smaller Hymenoptera, however, after being killed, were placed in small glass vials with similar labels, and were relaxed and pinned in the following winter.

R. T. Webber was assigned to this project when it was begun in 1915 and continued with it until 1921. The senior author has been actively associated with the project since early in 1919, and the junior author, who assisted at various times from 1923 to 1926, was permanently detailed to the work in the latter part of 1926.

As a guide to the systematic arrangement the authors have used the following published lists:

*Lepidoptera*.—Check List of the Diurnal Lepidoptera of Boreal America. W. Barnes and F. H. Benjamin. Bulletin of the Southern California Academy of Science, volume 25, pp. 3-27, 1926.

Check List of the Lepidoptera of Boreal America, Superfamilies Sphingoidea, Saturnioidea, and Bombycoidea. W. Barnes and F. H. Benjamin. Bulletin of the Southern California Academy of Science, volume 26, pp. 35-50, 1927.

Check List of the Lepidoptera of Boreal America. W. Barnes and J. McDunnough. 392 pp. Decatur, Ill. 1917.

Studies in North American Cleorini (Geometridae). J. H. McDunnough. Canada Department of Agriculture, Bulletin 18, 1920.

*Diptera*. A Catalog of North American Diptera (or Two-Winged Flies). J. M. Aldrich. Smithsonian Miscellaneous Collection, volume 46, no. 1444, 1905.

*Hymenoptera*. A List of the Insects of New York, with a List of the Spiders and Certain Other Allied Groups. M. D. Leonard. Cornell University Agricultural Experiment Station Memoir 101. (Compilations by Rohwer, Muesebeck, Cushman, Gahan, Crosby, and Leonard.) pp. 870-1033, 1928.

## HOST-PARASITE LIST

The following symbols have been used in this publication:

The asterisk (\*) indicates the number of parasitized hosts rather than the number of parasites, since the latter are gregarious and therefore were not counted.

The dagger (†) indicates that the identification of the parasite from this host is somewhat in doubt because the specimens are not quite typical or the sex having the most important specific characters was not obtained.

The double dagger (‡) indicates that this species acts as the hibernating host.

## ORDER LEPIDOPTERA

### FAMILY PAPILIONIDAE

#### PAPILIO PHILENOR L.

Food plant: Dutchmans-pipe.

Occurrence: Collections from Massachusetts, Rhode Island, Connecticut, and New Jersey. Reported as rather plentiful in a nursery at Manchester, Conn., in September 1923 and again in September 1928.

Totals received: Collections, 14; larvae, 290; years, 7.

Larvae: June to July, and August to October.

Pupae: Every month. (Hibernates in this stage.)

Adults: May to June, and July to August.

Generations: Two.

#### *Parasite*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Compsilura concinnata</i> Meig.	1	1	1	60

#### PAPILIO AJAX L. (POLYXENES FAB.)

Food plants: Carrot, celery, parsley, parsnip.

Occurrence: Collections from Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, and New Jersey. Usually quite common, especially in small gardens.

Totals received: Collections, 149; larvae and pupae, 729; years, 15.

Larvae: June to October.

Pupae: All months. (Hibernates in this stage.)

Adults: May to July, and July to September.

Generations: Two.

#### *Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae or pupae
Diptera:				
<i>Achaetoneura frenchii</i> Will.	5	2	2	7
<i>Compsilura concinnata</i> Meig.	42	10	14	120
<i>Eupogona obscura</i> Coq.	5	1	1	4
Tachinidae (unidentified puparia)	2	1	1	121
Hymenoptera:				
<i>Dibrachys hemerocampae</i> Gir.	*1	1	1	3
<i>Pteromalus archippii</i> How.	*1	1	1	1
<i>Pteromalus puparum</i> var. <i>vanessae</i> Harr.	*2	2	2	46
<i>Trogus vulpinus</i> Grav.	114	12	42	402

## PAPILIO GLAUCUS FORM TURNUS L.

Food plants: Apple, aspen, white ash, gray birch, yellow birch, wild black cherry, lilac.

Occurrence: Collections from all parts of New England, New York, and New Jersey. Never reported as injurious.

Totals received: Collections, 118; larvae, 209; years, 15.

Larvae: June to October.

Pupae: July to August, and August to the next summer.

Adults: May to August.

Generations: One or two.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Achaetoneura frenchii</i> Will.	33	6	12	38
<i>Compsilura concinnata</i> Meig.	25	10	14	47
Tachinidae (unidentified puparia)	13	3	3	4
Hymenoptera:				
Ichneumonidae (dead larva)	1	1	1	1
<i>Trogus fulvipes</i> Cress.	11	4	10	17
<i>Trogus vulpinus</i> Grav.	5	5	5	5

## PAPILIO TROILUS L.

Food plants: Sassafras, spicebush.

Occurrence: Collections from Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania. It is sometimes quite common where its food plants abound, though often overlooked by collectors as it usually remains during the daytime in a leaf folded about itself.

Totals received: Collections, 49; larvae, 301; years, 10.

Larvae: June to October.

Pupae: Fall to spring, and July and August.

Adults: May to July, and July to September.

Generations: Two.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Achaetoneura frenchii</i> Will.	3	2	2	26
<i>Compsilura concinnata</i> Meig.	25	2	6	76
Hymenoptera:				
<i>Trogus vulpinus</i> Grav.	18	4	8	45

## FAMILY ASCIIDAE

## ASCIA RAPAE L.

Food plants: Cruciferous plants.

Occurrence: Collections from New England, New York, New Jersey, and Pennsylvania. Very often abundant enough to necessitate control measures.

Totals received: Collections, 201; larvae and pupae, 7,501; years, 14.

Larvae: June to November.

Pupae: Every month. (Hibernates in this stage.)

Adults: May to June, and June to October.

Generations: Two or three.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae or pupae
<b>Diptera:</b>				
<i>Achaetoneura archippivora</i> Will-----	15	7	7	417
<i>Achaetoneura frenchii</i> Will-----	4	3	3	130
<i>Compsilura concinnata</i> Meig-----	34	6	13	472
Tachinidae (unidentified puparia)-----	7	4	5	194
<i>Zenillia vulgaris</i> Fall-----	82	8	32	1,695
<b>Hymenoptera:</b>				
<i>Apanteles glomeratus</i> L-----	*801	12	110	5,287
<i>Pteromalus puparum</i> L-----	*15	3	4	92

**FAMILY DANAIIDAE****DANAUS MENIPPE HBN.**

Food plant: Milkweed.

Occurrence: Collections from New England, New York, and New Jersey. It does not winter in this section of the country and some years it fails to migrate as far north as New England.

Totals received: Collections, 184; larvae, 764; years, 9.

Larvae: May to September in New Jersey; June to September in New England.

Pupae: June and July to October.

Adults: May and June to October.

Generations: The records indicate 2 in New England and 3 in New Jersey.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Achaetoneura archippivora</i> Will-----	493	8	66	484
<i>Compsilura concinnata</i> Meig-----	37	4	14	103
<i>Eupogona obscura</i> Coq-----	2	1	1	1
Tachinidae (unidentified puparia)-----	2	1	1	3
<i>Zenillia vulgaris</i> Fall-----	3	1	1	13

**FAMILY NYMPHALIDAE****EUPHOIETA CLAUDIA CRAM.**

Food plant: Pansy.

Occurrence: One collection from Holliston, Mass.

Total received: Collections, 1; larvae, 1; years, 1.

Larva: Late June to July.

Pupa: July and August.

Adult: Issued August 6.

**DRYAS CYBELE FAB.**

Food plant: Violet.

Occurrence: Collections from Corinth, Maine, and Northboro, Mass.

Totals received: Collections, 2; larvae, 2; years, 2.

Larvae: Late May to July.

Pupae: Late June to July.

Adults: Issued July 7 and 23.

## EUPHYDRYAS PHAETON DRU.

Food plant: Turtlehead.

Occurrence: Collections from Maine, Massachusetts, New York, and New Jersey. Often very common where its food plant is plentiful. Hibernates as partly grown larvae, usually in colonies.

Totals received: Collections, 31; larvae, 1,171; years, 10.

Larvae: July to June.

Pupae: June and July.

Adults: June and July.

Generations: One.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Compsilura concinnata</i> Meig.	1	1	1	200
Hymenoptera:				
<i>Amblyteles versabilis</i> Cress.	5	2	4	190
<i>Apanteles</i> n. sp.	5	1	1	200
<i>Benjaminia euphydryadis</i> Vier.	8	5	6	200

## LEMONIAS HARRISII SCUD.

Food plant: Aster.

Occurrence: Collections from Maine, New Hampshire, Vermont, Massachusetts, and New Jersey. Sometimes quite common locally. Hibernates gregariously in a webbing on or near the food plant.

Totals received: Collections, 25; larvae, 714; years, 10.

Larvae: July to June.

Pupae: June to early July.

Adults: June and July.

Generations: One.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Compsilura concinnata</i> Meig.	1	1	1	10
Tachinidae (unidentified maggot)	1	1	1	10
Hymenoptera:				
<i>Apanteles euphydryidis</i> Mues.	*1	1	1	1
<i>Apanteles lunatus</i> Pack.	3	1	1	10
<i>Apanteles</i> sp.	1	1	1	2
<i>Benjaminia euphydryadis</i> Vier.	1	1	1	10
<i>Amblyteles propitiatus</i> Cress.	1	1	1	3

## POLYGONIA INTERROGATIONIS FAB.

Food plants: Elm, hackberry, hop, nettle.

Occurrence: Collections from Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania. Sometimes very common along roadsides, especially on elm sprout growth.

Totals received: Collections, 94; larvae, 977; years, 12.

Larvae: May to September.

Pupae: June to October.

Adults: Issue late June to October. (Hibernate as adults.)

Generations: At least two.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Compsilura concinnata</i> Meig.	108	4	17	254
<i>Phorocera claripennis</i> Macq.	14	2	5	40
<i>Exorista mellae</i> Walk.	2	2	2	7
<i>Zenillia blanda</i> O. S.	1	1	1	35
<i>Zenillia virilis</i> A. and W.	2	1	1	147
<b>Hymenoptera:</b>				
<i>Amblyteles caliginosus</i> Cress.	2	2	2	197
<i>Apanteles</i> sp.	*1	1	1	3
<i>Hoplismenus morulus</i> Say	1	1	1	16
<i>Hyposoter</i> n. sp.	3	1	1	6
<i>Meteorus hyphantriae</i> Riley	1	1	1	4

## POLYGONIA COMMA HARR.

Food plants: Elm, nettle.

Occurrence: Collections from Maine, Vermont, Massachusetts, New York, and New Jersey.

Totals received: Collections, 8; larvae, 118; years, 5.

Larvae: May to late August.

Pupae: June to September.

Adults: July to September. (Adults hibernate.)

Generations: At least two.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Compsilura concinnata</i> Meig.	2	2	2	2
<i>Phorocera claripennis</i> Macq.	1	1	1	71
Tachinidae (unidentified puparium)	1	1	1	71
<b>Hymenoptera:</b>				
<i>Amblyteles rufiventris</i> Brullé.	1	1	1	71
<i>Apanteles</i> sp. (cocoons)	*1	1	1	1

## POLYGONIA PROGNE CRAM.

Food plants: Currant, gooseberry.

Occurrence: Collections from Bangor, Maine; Barre, Vt.; and Hancock, N.Y.

Totals received: Collections, 4; larvae, 7; years, 3.

Larvae: May to September.

Pupae: June to September.

Adults: Issue July to September.

Generations: At least two.

## HAMADRYAS J-ALBUM BDV. AND LEC.

Food plants: Gray and paper birch.

Occurrence: Collections from New Hampshire and Massachusetts.

Totals received: Collections, 16; larvae, 176; years, 5.

Larvae: May to July.

Pupae: Late June to August.

Adults: July and August. (Adults hibernate.)

## Parasite

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera: <i>Compsilura concinnata</i> Meig.	3	1	1	1

## HAMADRYAS MILBERTI GODT.

Food plant: Nettle.

Occurrence: New England States, New York, and New Jersey. Larvae usually gregarious and often in large numbers locally.

Totals received: Collections, 56; larvae, 5,100; years, 9.

Larvae: May to September.

Pupae: June to October.

Adults: June to October. (Adults hibernate.)

Generations: At least two.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Achaetoneura archippivora</i> Will	130	1	2	122
<i>Compsilura concinnata</i> Meig.	735	4	20	1,961
<i>Pelatachina pellucida</i> Coq.	1	1	1	331
Tachinidae (unidentified puparia)	6	3	3	491
<i>Winthemia</i> (?) <i>quadripustulata</i> Fab.	5	3	4	260
<i>Zenillia sutilis</i> O. S.	18	3	6	269
Hymenoptera:				
<i>Apanteles atalantae</i> Pack.	*665	8	32	3,740
<i>Apanteles edwardsii</i> Riley	3	1	1	12
<i>Hyposoter</i> n. sp.	2	1	.1	33

## HAMADRYAS ANTIOPA L.

Food plants: Elm, aspens, willows.

Occurrence: Collections from New England States, New York, New Jersey, and Pennsylvania. Larvae are gregarious and often very common, sometimes defoliating small trees or sprout growth but seldom abundant enough to defoliate trees of large size.

Totals received: Collections, 323; larvae and pupae, 21,529; years, 15.

Larvae: May to late September.

Pupae: June to October.

Adults: Issue June to October. (Hibernate in this stage.)

Generations: At least two.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae or pupae
Diptera:				
<i>Achaetoneura aletiae</i> Riley	10	3	6	939
<i>Achaetoneura frenchii</i> Will	1	1	1	80
<i>Achaetoneura archippivora</i> Will	1	1	1	16
<i>Compsilura concinnata</i> Meig.	5,535	15	154	9,358
<i>Pelatachina pellucida</i> Coq.	3,294	15	112	4,574
<i>Phorocera claripennis</i> Macq.	77	6	20	2,186
<i>Phorocera</i> sp.	7	1	2	305
<i>Exorista mella</i> Walk.	7	3	3	367
<i>Winthemia</i> (?) <i>sinuata</i> Reinhard	2	2	2	392
Hymenoptera:				
<i>Ephialtes</i> ( <i>Itopleciis</i> ) <i>conquisitor</i> Say	1	1	1	100
<i>Hyposoter</i> n. sp.	99	8	15	744
<i>Pteromalus puparum</i> L.	*1	1	1	1

## CYNTHIA ATALANTA L.

Food plant: Nettle.

Occurrence: Collections from Maine, New Hampshire, Massachusetts, New York, New Jersey, and Pennsylvania. Sometimes abundant locally where its food plant is plentiful. Larvae solitary and usually found in folded leaves.

Totals received: Collections, 99; larvae, 2,730; years, 13.

Larvae: Late May and June to middle of September.

Pupae: Late June to early October.

Adults: Issue July to middle of October. (Hibernate in this stage.)

Generations: At least two.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Achaetoneura archippivora</i> Will	183	4	16	1,227
<i>Achaetoneura frenchii</i> Will	1	1	1	100
<i>Compsilura concinnata</i> Meig	96	9	20	441
<i>Pelatachina pellucida</i> Coq	2	1	1	37
<i>Zenillia blanda</i> O.S.	2	1	1	219
<i>Zenillia futulis</i> O.S.	940	9	49	2,188
<i>Zenillia virilis</i> A. and W.	1	1	1	219
Hymenoptera:				
<i>Amblyteles caliginosus</i> Cress	25	7	13	1,063
<i>Amblyteles</i> near <i>versabilis</i> Cress	1	1	1	8
<i>Apanteles atalantae</i> Pack	*257	11	44	1,042
<i>Apanteles edwardsii</i> Riley	7	2	3	89
<i>Campoplex</i> sp.	1	1	1	35
<i>Campoplex</i> sp.	2	2	2	26
(?) <i>Comedo</i> sp. <sup>1</sup>	*1	1	1	4
<i>Meteorus hyphantriae</i> Riley	1	1	1	28
<i>Sazaritis dubitatus</i> Cress	1	1	1	13

<sup>1</sup> All of the pupae produced adults of the hyperparasite *Tetrastichus* sp.

## CYNTHIA VIRGINIENSIS DRU. (HUNTERA FAB.)

Food plant: Pearl everlasting.

Occurrence: Collections from Maine, New Hampshire, Massachusetts, New York, New Jersey, and Pennsylvania. Larvae usually solitary in webbed terminals of its food plant.

Totals received: Collections, 29; larvae, 201; years, 9.

Larvae: June to September.

Pupae: July to October.

Adults: Issue August to October. (Hibernate in this stage.)

Generations: Two.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Compsilura concinnata</i> Meig	2	2	2	18
Hymenoptera:				
<i>Amblyteles rufiventris</i> Brullé	7	3	6	65

## CYNTHIA CARDUI L.

Food plants: Burdock, hollyhock, thistle.

Occurrence: Collections from New England, New York, and New Jersey. Occasionally causes some concern to owners of gardens growing hollyhocks. Some years it is extremely rare, possibly entirely absent from New England, and in other years it appears in abundance.

Totals received: Collections, 32; larvae, 846; years, 4.

Larvae: June to September.

Pupae: July to September.

Adults: Issue July to September.

Generations: One or two.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Achaetoneura archippivora</i> Will.	11	2	4	162
<i>Zenillia futilis</i> O.S.	1	1	1	75
Hymenoptera:				
<i>Amblyteles rufiventris</i> Brullé	114	3	13	682
<i>Coelopisthoidea</i> n. sp.	*2	1	1	21
<i>Ephialtes (Hoplectis) conquistor</i> Say	1	1	1	28
<i>Meteorus</i> sp.	1	1	1	4

## BASILARCHIA ARTHEMIS DRU.

Food plants: Apple, wild black cherry.

Occurrence: Collections from Middlesex, Vt., and Boxford, Mass.

Totals received: Collections, 2; larvae, 4; years, 2.

Larvae: Active May and June. (Hibernate as larvae.)

Pupae: June and July.

Adults: Issue late June to July.

## BASILARCHIA ARTHEMIS ASTYANAX FAB.

Food plants: Apple, wild black cherry.

Occurrence: Collections from Vermont, Massachusetts, and New Jersey.

Totals received: Collections, 19; larvae and pupae, 24; years, 8.

Larvae: Active May to August. (Hibernate as larvae.)

Pupae: May to August.

Adults: Issue late May to August.

Generations: At least two.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae or pupae
Diptera:				
<i>Compsilura concinnata</i> Meig.	1	1	1	1
Hymenoptera:				
<i>Pteromalus archippi</i> How.	*1	1	1	1

## BASILARCHIA ARCHIPPUS CRAM.

Food plants: Aspen, willow.

Occurrence: Collections from New England, New York, New Jersey, and Pennsylvania.

Totals received: Collections, 191; larvae and pupae, 1,039; years, 15.

Larvae: Active spring till fall. (Partly-grown larvae hibernate individually, each in a rolled leaf attached to a twig of the food plant.)

Pupae: June to September.

Adults: June to September.

Generations: At least two.

### Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae or pupae
Diptera:				
<i>Compsilura concinnata</i> Meig.	347	10	43	510
Hymenoptera:				
<i>Apanteles limenitidis</i> Riley	11	4	8	28
<i>Pteromalus archippi</i> How	*2	1	2	2

### ASTEROCAMPA CLYTON BDV. AND LEC.

Food plant: Hackberry.

Occurrence: Collection from Pluckemin, N.J.

Totals received: One larva.

Larva: May and June. (Specimen inflated for the Melrose Highlands laboratory.)

### MISCELLANEOUS UNIDENTIFIED NYMPHALINAE

Food plants: Not listed.

Occurrence: Collections from Maine, Massachusetts, and New Jersey.

Totals received: Collections, 3; larvae and pupae, 3; years, 3.

Larvae: August and September.

Pupae: Fall.

Adults: None.

### Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae or pupae
Hymenoptera:				
<i>Amblyteles rufiventris</i> Brullé	1	1	1	1
<i>Neonortonia major</i> Cress	1	1	1	1
<i>Pteromalus puparum</i> L.	*1	1	1	1

### FAMILY LYCAENIDAE

#### STRYMON MELINUS HBN.

Food plant: Bean (pods).

Occurrence: Collection from Melrose, Mass.

Totals received: Collections, 1; larvae, 3; years, 1.

Larvae: July and August.

Pupae: August.

Adults: Late August to September.

#### LYCAENA HYPOPHLAEAS BDV.

Food plant: Not listed.

Occurrence: One collection of one pupa from Melrose, Mass.

Pupa: July to August.

Adult: August.

## FAMILY HESPERIIDAE

## EPARGYREUS TITYRUS FAB.

Food plants: Black locust, ground nut, wisteria.

Occurrence: Collections from Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania. Larvae solitary and usually found between leaves spun together with silk.

Totals received: Collections, 157; larvae, 2,777; years, 11.

Larvae: July to October.

Pupae: Fall to spring, and late July to August.

Adults: Late May to July, and August to September.

Generations: One or two (at least a partial second generation).

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Achaetoneura oletiae</i> Riley-----	2	2	2	63
<i>Compsilura concinnata</i> Meig-----	23	4	9	151
<i>Phorocera claripennis</i> Macq-----	7	2	3	43
Tachinidae (unidentified puparia)-----	3	2	3	90
<i>Zenillia blanda</i> O. S-----	3	2	3	76
<i>Zenillia virilis</i> A. and W-----	1	1	1	54
<b>Hymenoptera:</b>				
<i>Apanteles argynnidis</i> Riley-----	*29	6	20	511
<i>Campoplex</i> sp-----	1	1	1	9

## ERYNNIS ICELUS SCUD. AND BURG.

Food plants: Black locust, aspen, willow.

Occurrence: Collections from Maine, Massachusetts, New York, and New Jersey. Larvae solitary and usually found between leaves spun together with silk.

Totals received: Collections, 15; larvae, 30; years, 4.

Larvae: August and September, and through to spring. (Hibernates as full-grown larva.)

Pupae: May and June.

Adults: June and July.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Compsilura concinnata</i> Meig-----	2	1	1	2
<i>Sturmia fraudulenta</i> v.d.W-----	1	1	1	4
Tachinidae (unidentified puparia)-----	2	2	2	4

## ERYNNIS SP. (HORATIUS S. AND B. AND JUVENALIS FAB.)

Food plants: Oak—black, red, and scrub.

Occurrence: All collections from eastern Massachusetts. Larvae solitary; usually found on upper side of leaf, a part of which is folded over to afford it protection.

Totals received: Collections, 24; larvae, 148; years, 6.

Larvae: Active June to October, hibernating in last instar.

Pupae: July to August, and late April to May.

Adults: Late May to June, and late July to August.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Compsilura concinnata</i> Meig.	3	2	2	30
Hymenoptera:				
<i>Apanteles hesperidivorus</i> Vier.	*1	1	1	1

## FAMILY SPHINGIDAE

## PHLEGETHONTIUS SEXTA JOHAN.

Food plant: Tomato.

Occurrence: Collections from Massachusetts, Rhode Island, Connecticut, and New Jersey.

Totals received: Collections, 9; larvae, 58; years, 4.

Larvae: Late July to September.

Pupae: Fall to summer.

Adults: July and August.

Generations: One.

*Parasite*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Hymenoptera:				
<i>Apanteles congregatus</i> Say	*7	2	2	8

## PHLEGETHONTIUS QUINQUEMACULATA HAW.

Food plants: Tomato, potato.

Occurrence: New England and New Jersey.

Totals received: Collections, 134; larvae, 871; years, 15.

Larvae: July to October.

Pupae: August to September, and through to spring.

Adults: July to August, and August to September.

Generations: One, with sometimes a partial second.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Achaetoneura frenchii</i> Will.	1	1	1	6
<i>Compsilura concinnata</i> Meig.	21	6	8	121
Hymenoptera:				
<i>Apanteles congregatus</i> Say	*242	12	54	453

## CERATOMIA AMYNTOR HBN.

Food plants: Basswood, birch, elm.

Occurrence: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, New York, and New Jersey.

Totals received: Collections, 28; larvae, 29; years, 11.

Larvae: July to October.

Pupae: Fall to spring.

Adults: June and July.

## Parasite

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera: <i>Sturmia incompta</i> v.d.W.....	18	1	1	2

## CERATOMIA UNDULOSA WALK.

Food plants: White ash, lilac.

Occurrence: Collections from Maine, New Hampshire, Massachusetts, Connecticut, New York, New Jersey, and Pennsylvania. This species was found defoliating some roadside white ash trees at Leyden, N.Y., in August 1928.

Totals received: Collections, 15; larvae, 70; years, 7.

Larvae: June to October.

Pupae: Fall to spring.

Adults: Late May to July.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera: <i>Achaetoneura frenchii</i> , Will.....	334	2	3	56
<i>Compsilura concinnata</i> Meig.....	2	1	1	1
Tachinidae (unidentified puparia).....	7	1	1	2
Hymenoptera: <i>Apanteles smerinthii</i> Riley.....	*1	1	1	2

## CERATOMIA CATALPAE BDV.

Food plant: Catalpa.

Occurrence: Collections from New Jersey. Often reported as injurious.

Totals received: Collections, 30; larvae, 2,452; years, 7.

Larvae: Middle of June to early October.

Pupae: Found every month of the year.

Adults: Early June to late September.

Generations: At least two.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera: <i>Achaetoneura frenchii</i> Will.....	8	3	3	296
<i>Achaetoneura</i> sp.....	1	1	1	317
<i>Compsilura concinnata</i> Meig.....	3	1	1	34
<i>Phorocera claripennis</i> Macq.....	7	1	1	84
Tachinidae (unidentified puparia).....	2	1	1	300
<i>Winthemia datanae</i> Town.....	31	4	6	1,000
<i>Zenillia virilis</i> A. and W.....	3	1	1	300
Hymenoptera: <i>Apanteles congregatus</i> Say.....	*286	6	15	1,673

## HYLOICUS EREMITUS HBN.

Food plants: Mints.

Occurrence: Two collections of one larva each from Winsted and East Hartford, Conn., October 7, 1924, and September 8, 1926.

Not reared to adult stage.

## HYLOICUS CHERSIS HBN.

Food plants: White ash, lilac.

Occurrence: Collections from Maine, New Hampshire, Vermont, Massachusetts, New York, and Pennsylvania. Often common on white ash sprouts growing in open, especially along roadsides and fence rows.

Totals received: Collections, 38; larvae, 75; years, 11.

Larvae: July to late September.

Pupae: Fall to spring.

Adults: June and July.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Achaetoneura frenchii</i> Will	29	3	6	14
<i>Blepharipeza leucophrys</i> Wied	6	1	1	1
<i>Compsilura concinnata</i> Meig	7	2	2	3
Tachinidae (unidentified puparia)	16	1	1	1
<b>Hymenoptera:</b>				
Ophionini (failed to mature)	1	1	1	1

## HYLOICUS CANADENSIS BDV.

Food plants: White ash.

Occurrence: One collection from Hudson, Maine

Total received: Four larvae.

Larvae: July to September.

Pupae: Fall to spring.

Adults: June.

*Parasite*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Hymenoptera:</b>				
<i>Apanteles</i> n. sp.	*1	1	1	4

## HYLOICUS KALMIAE S. AND A.

Food plants: White ash, mountain laurel, lilac, rhododendron.

Occurrence: Collections from Maine, New Hampshire, Massachusetts, and New York.

Totals received: Collections, 15; larvae, 16; years, 9.

Larvae: August to October.

Pupae: Fall to spring.

Adults: June.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Achaetoneura frenchii</i> Will.	14	1	1	1
Tachinidae (unidentified puparia)	2	1	1	1
Hymenoptera:				
<i>Micropplitis ceratomiae</i> Riley	*1	1	1	1
<i>Trogus apicalis</i> Cress.	1	1	1	1

**HYLOICUS GORDIUS CRAM.**

Food plants: Apple, bayberry, cranberry, sweetfern, wild rose.

Occurrence: Collections from Maine, Massachusetts, Rhode Island, Connecticut, and New York.

Totals received: Collections, 48; larvae, 79; years, 13.

Larvae: August to October.

Pupae: Fall to spring.

Adults: June.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Compsilura concinnata</i> Meig.	11	2	4	13
Tachinidae (unidentified puparia)	10	1	1	1
<i>Winthemia datanae</i> Town. (var. B.)	8	2	2	3
Hymenoptera:				
<i>Apanteles congregatus</i> Say	*2	1	2	5
<i>Apanteles gordii</i> Mues.	*8	4	6	11
<i>Apanteles</i> sp. ( cocoons )	*6	4	4	7
<i>Micropplitis ceratomiae</i> Riley	*13	6	8	18

**HYLOICUS LUSCITIOSA CLEM.**

Food plants: Aspen, willow.

Occurrence: Collections from Stockton, Maine, Wakefield, Mass., a pair of moths from Concord, N.H., June 23, 1929.

Totals received: Collections, 2; larvae, 2; years, 2.

Larvae: July and August.

Pupae: Fall to next summer.

Adults: Late June and July.

*Parasite*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Metaplagia occidentalis</i> Coq.	11	1	1	1

## HYLOICUS DRUPIFERARUM S. AND A.

Food plants: Apple, wild black cherry, beach plum.

Occurrence: Collections from New England, New York, and New Jersey.

Totals received: Collections, 20; larvae, 24; years, 9.

Larvae: July to September.

Pupae: Fall to spring.

Adults: June and July.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite		
			Number of collections	Number of larvae	
Diptera:					
<i>Compsilura concinnata</i> Meig.	5	1	1		2
Tachinidae (unidentified puparia)	25	2	2		2
<i>Winthemia datanae</i> Town. (var. B.)	22	2	2		2

## LAPARA BOMBYCOIDES WALK.

Food plants: Pine (pitch, white, and jack).

Occurrence: Collections from Maine, Massachusetts, and Connecticut.

Totals received: Collections, 16; larvae, 18; years, 9.

Larvae: July to September.

Pupae: Fall to next summer.

Adults: June and July.

## Parasite

	Parasite specimens	Years recovered	Collections yielding this parasite		
			Number of collections	Number of larvae	
Hymenoptera:					
<i>Apanteles congregatus</i> Say	*1	1	1	1	1

## SMERINTHUS GEMINATUS SAY

Food plants: Aspen, willow.

Occurrence: Collections from Maine, Vermont, Massachusetts, and New York.

Totals received: Collections, 43; larvae, 121; years, 9.

Larvae: July to October.

Pupae: Fall to spring.

Adults: Middle of May to middle of August.

Generations: One. (Adults issue over a long period.)

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite		
			Number of collections	Number of larvae	
Diptera:					
<i>Achiasoneura frenchii</i> Will.	21	3	4		15
<i>Compsilura concinnata</i> Meig.	6	1	1		16
Tachinidae (unidentified puparium)	1	1	1		4
<i>Zenilli blan.</i> C. S.	1	1	1		1
Hymenoptera:					
<i>Apanteles smerinthi</i> Riley	*13	6	10		56
Ophionini (cocoons)	2	1	1		16

## SMERINTHUS CERISYI KIRBY

Food plant: Willow.

Occurrence: One larva collected at Kenduskeag, Maine.

Larva: August to September.

Pupa: Fall to spring.

Adult: Not reared.

## Parasite

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera: <i>Compsilura concinnata</i> Meig.	1	1	1	1

## PAONIAS EXCAECATA S. AND A.

Food plants: Apple, aspen, birch, willow.

Occurrence: Collections from Maine, Vermont, Massachusetts, Connecticut, and New York.

Totals received: Collections, 40; larvae, 81; years, 10.

Larvae: July to October.

Pupae: Fall to spring.

Adults: May and June.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera: <i>Blepharipeza leucophrys</i> Wied.	4	1	1	2
<i>Compsilura concinnata</i> Meig.	8	1	2	4
<i>Winthemia datanae</i> Town. (var. B.)	38	4	4	4
Hymenoptera: <i>Apanteles congregatus</i> Say	*4	1	2	4
<i>Apanteles smerinthii</i> Riley	*4	1	2	7
Ophionini (cocoon)	1	1	1	1

## PAONIAS MYOPS S. AND A.

Food plant: Wild cherry.

Occurrence: Collections from Maine, Massachusetts, New York, New Jersey, and Pennsylvania.

Totals received: Collections, 30; larvae, 183; years, 10.

Larvae: July to October.

Pupae: Fall to spring.

Adults: May and June.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera: <i>Achaetoneura frenchii</i> Will.	13	2	2	5
<i>Compsilura concinnata</i> Meig.	6	2	3	68
Tachinidae (unidentified puparia)	4	1	2	119
Hymenoptera: <i>Apanteles congregatus</i> Say	*2	2	2	3
<i>Microplitis ceratomiae</i> Riley	*10	1	1	14
Ophionini (cocoon)	1	1	1	65
<i>Trogus brullei</i> Cress.	11	1	2	119
<i>Trogus canadensis</i> Prov.	14	3	5	135

## PAONIAS ASTYLUS DRU.

Food plant: Blueberry.

Occurrence: One larva collected at Hillsboro, N.J.

Larva: August and September. (Inflated for Melrose Highlands laboratory.)  
Pupa and adult not reared.

## Parasite

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Hymenoptera: <i>Apanteles congregatus</i> Say-----		*1	1	1

## CRESSONIA JUGLANDIS S. and A.

Food plants: Beech, hickory, black walnut.

Occurrence: Collections from Maine, New Hampshire, Vermont, Massachusetts, and New Jersey.

Totals received: Collections, 20; larvae, 26; years, 10.

Larvae: July to September.

Pupae: Fall to spring.

Adults: June and July.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera: Tachinidae (unidentified maggots)----- <i>Winthemia datanae</i> Town. (var. B.)-----		3 12	1 1	1 1

## PACHYSPHINX MODESTA HARR.

Food plants: Aspens.

Occurrence: Maine, New Hampshire, Vermont, and Massachusetts.

Totals received: Collections, 7; larvae, 12; years, 4.

Larvae: July to October.

Pupae: Fall to summer.

Adults: June and July.

## HEMARIS THYSBE FAB.

Food plants: Viburnums.

Occurrence: Massachusetts and New York.

Totals received: Collections, 20; larvae, 217; years, 8.

Larvae: June to October.

Pupae: Fall to spring, and July and August.

Adults: May to August.

Generations: Two.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera: <i>Compsilura concinnata</i> Meig----- Near <i>Thysanomyia</i> sp----- Tachinidae (unidentified puparia)-----	34 11 17	3 2 2	5 2 2	146 8 80
Hymenoptera: <i>Apanteles congregatus</i> Say-----	*54	5	11	194

## HEMARIS DIFFINIS BDV.

Food plant: Bush honeysuckle.

Occurrence: One collection of two larvae from Melrose, Mass.

Larvae: June and July.

Pupae: July.

Adults: July and August.

Generations: Two. Larvae of the second brood have never been received.

## PHOLUS SATELLITIA PANDORUS HBN.

Food plants: Grape, Virginia creeper.

Occurrence: Collections from New Hampshire, Vermont, Massachusetts, New York, and New Jersey.

Totals received: Collections, 20; larvae, 22; years, 11.

Larvae: July to September.

Pupae: Fall to summer.

Adults: June and July.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Compsilura concinnata</i> Meig.	5	2	2	2
Hymenoptera:				
<i>Apanteles congregatus</i> Say	*7	4	7	8

## PHOLUS ACHEMON DRU.

Food plants: Grape, Virginia creeper.

Occurrence: Collections from Barre, Vt.; Saugus, Mass.; and East Hartford, Conn.

Totals received: Collections, 3; larvae, 3; years, 3.

Larvae: July and August.

Pupae: Fall to summer.

Adults: June and July.

## Parasite

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Compsilura concinnata</i> Meig.	3	1	1	1

## AMPELOECA MYRON CRAM.

Food plants: Grape, Virginia creeper.

Occurrence: Collections from Vermont, Massachusetts, Connecticut, and New Jersey.

Totals received: Collections, 13; larvae, 32; years, 8.

Larvae July to September.

Pupae: Fall to summer.

Adults: June and July.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Compsilura concinnata</i> Meig.	5	2	2	3
Hymenoptera:				
<i>Apanteles congregatus</i> Say	*17	3	5	20

**DARAPSA PHOLUS CRAM.**

Food plant: Viburnum.

Occurrence: One larva collected at Rockport, Mass.

Larva: August and September.

Pupa and adult not reared.

**SPHECODINA ABBOTTII SWAINS.**

Food plants: Grape, Virginia creeper.

Occurrence: Collections from Maine, New Hampshire, Vermont, Massachusetts, Connecticut, New Jersey, and Pennsylvania.

Totals received: Collections, 69; larvae, 133; years, 14.

Larvae: June to September.

Pupae: Late summer to spring.

Adults: May and June.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Compsilura concinnata</i> Meig.	5	3	3	14
<i>Zenillia blanda</i> O.S.	1	1	1	8
Hymenoptera:				
<i>Apanteles congregatus</i> Say	*13	7	9	35
<i>Trogus nubilipennis</i> Hald.	1	1	1	3

**DEIDAMIA INSCRIPTUM HARR.**

Food plants: Grape, Virginia creeper.

Occurrence: Collections from Claremont and Freedom, N.H., and Melrose, Lunenburg, and Wakefield, Mass.

Totals received: Collections, 6; larvae, 19; years, 5.

Larvae: July to September.

Pupae: Fall to spring.

Adults: May and June.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Compsilura concinnata</i> Meig.	3	1	1	9
Hymenoptera:				
<i>Apanteles congregatus</i> Say	*1	1	1	6
<i>Apanteles smerinthii</i> Riley	*1	1	1	1
<i>Apanteles</i> sp.	*2	2	2	2

## AMPHION NESSUS CRAM.

Food plants: Grape, Virginia creeper, evening-primrose.

Occurrence: Collections from New Hampshire and Massachusetts.

Totals received: Collections, 9; larvae, 15; years, 5.

Larvae: July and August.

Pupae: Late summer to spring.

Adults: May and June.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Compsilura concinnata</i> Meig.....	1	1	1	2
<i>Sturmia</i> sp. near <i>bakeri</i> Coq.....	6	1	1	1
<b>Hymenoptera:</b>				
<i>Amblyteles</i> sp. near <i>centrator</i> Say.....	1	1	1	2
<i>Apanteles congregatus</i> Say.....	*1	1	1	1

## SPHINX GALLII INTERMEDIA KIRBY

Food plants: Evening-primrose, galium, willow herb.

Occurrence: Collections from Maine, New Hampshire, Massachusetts, and New Jersey.

Totals received: Collections, 9; larvae, 21; years, 7.

Larvae: Late July to October.

Pupae: Fall to summer.

Adults: June and July.

## Parasite

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Compsilura concinnata</i> Meig.....	3	1	1	12

## SPHINX LINEATA FAB.

Food plants: Portulaca, purslane.

Occurrence: Collections from New Hampshire, Massachusetts, Rhode Island, Connecticut, and New Jersey.

Totals received: Collections, 25; larvae, 63; years 7.

Larvae: Late June to October.

Pupae: August to October, and fall to summer.

Adults: June to July, and September to October.

Generations: Two.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Compsilura concinnata</i> Meig.....	2	1	1	1
<i>Tachinidae</i> (unidentified puparia).....	10	1	2	2

## MISCELLANEOUS UNIDENTIFIED SPECIES OF SPHINGIDAE

Food plants: Various deciduous growths.

Occurrence: Collections from Maine, New Hampshire, Massachusetts, Rhode Island, New York, and New Jersey.

Totals received: Collections, 57; larvae, 83; years, 11.

Larvae: June to October.

Adults not reared.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Achaetoneura frenchii</i> Will	43	4	5	6
<i>Compsilura concinnata</i> Meig	8	3	5	5
<i>Winthemia rufopicta</i> Bigot	2	1	1	1
<i>Zenillia</i> sp	3	1	1	1
<b>Hymenoptera:</b>				
<i>Apanteles congregatus</i> Say	* 3	3	3	4
<i>Apanteles smerinthii</i> Riley	* 1	1	1	1
<i>Apanteles</i> sp	* 3	3	3	4
<i>Microplitis ceratomiae</i> Riley	* 3	3	3	5
Ophionini (cocoon)	1	1	1	1
<i>Trogus canadensis</i> Prov	1	1	1	2

## FAMILY SATURNIIDAE

## SAMIA WALKERI ADVENA PACK.

Food plants: Ailanthus, wild black cherry.

Occurrence: Collections from New Jersey, and Long Island, N.Y.

Totals received: Collections, 10; larvae and pupae, 1,346; years, 5.

Larvae: July to early October.

Pupae: Late August to next summer.

Adults: June to early September.

Generations: One. (Occasionally some pupae remain dormant until the second summer.)

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae or pupae
<b>Diptera:</b>				
<i>Achaetoneura frenchii</i> Will	53	3	3	910
<i>Winthemia (?) datanae</i> Town	50	4	4	874
<b>Hymenoptera:</b>				
<i>Eremotylus macrurus</i> L	1	1	1	475
<i>Spilochalcis mariae</i> Riley <sup>1</sup>	* 5	2	2	670

<sup>1</sup> 68 specimens of *S. mariae* were recovered from the 5 host cocoons.

## PLATYSAMIA CECROPIA L.

Food plants: Apple, ash, birch, cherry, elderberry, grape, hawthorn, maple, rose, sassafras, pussy willow.

Occurrence: Collections from New England, New York, New Jersey, and Pennsylvania.

Totals received: Collections, 160; larvae and pupae, 1,701; years, 15.

Larvae: Late June to October.

Pupae: August to spring.

Adults: Late May to July.

Generations: One.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae or pupae
<b>Diptera:</b>				
<i>Achaetoneura samiae</i> Webber	1,709	10	40	173
<i>Achaetoneura frenchii</i> Will	36	2	2	17
<i>Compsilura concinnata</i> Meig.	8	2	2	11
<i>Phorocera claripennis</i> Macq.	1	1	1	2
<i>Winthemia</i> sp. (puparia)	14	3	3	16
<i>Zenillia virilis</i> A. and W.	5	1	1	1
<b>Hymenoptera:</b>				
<i>Eremotylus macrurus</i> L.	9	4	7	78
<i>Spilochalcis mariae</i> Riley	*1	1	1	3
<i>Spilocryptus extrematis</i> Cress	*4	3	4	8

## CALLOSAMIA PROMETHEA DRU.

Food plants: Ash, cherry, lilac, spicebush, sassafras.

Occurrence: Collections from New England, New York, New Jersey, and Pennsylvania.

Totals received: Collections, 132; larvae and pupae, 4,644; years, 15.

Larvae: Late June to September.

Pupae: Late summer through to the next summer.

Adults: June to August.

Generations: One. (Occasionally some pupae remain dormant until the second summer.)

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae or pupae
<b>Diptera:</b>				
<i>Achaetoneura frenchii</i> Will	600	8	22	1,724
<i>Compsilura concinnata</i> Meig.	13	5	7	738
<i>Phorocera claripennis</i> Macq.	4	2	2	170
<i>Exorista mellae</i> Walk.	1	1	1	53
Tachinidae (unidentified puparia)	3	2	2	15
<i>Winthemia</i> sp. (puparia)	2	1	1	1
<i>Zenillia virilis</i> A. and W.	7	3	3	590
<b>Hymenoptera:</b>				
<i>Eremotylus macrurus</i> L.	380	10	35	2,433
<i>Spilochalcis mariae</i> Riley	*26	4	9	1,166
<i>Spilocryptus nuncius</i> Say	*61	7	21	2,179

## ACTIAS LUNA L.

Food plants: Beech, hickory, and black walnut.

Occurrence: Collections from New Hampshire, Vermont, Massachusetts, Connecticut, New Jersey, and Pennsylvania.

Totals received: Collections, 22; larvae and pupae, 29; years, 9.

Larvae: July to September.

Pupae: Fall to summer.

Adults: June and July.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae or pupae
Diptera:				
Tachinidae (unidentified puparia).....	8	1	1	1
Hymenoptera:				
<i>Eremotylus macrurus</i> L.....	1	1	1	1

**TELEA POLYPHEMUS CRAM.**

Food plants: Beech, birch, elm, hawthorn, hickory, linden, maple, oak, sassafras, tulip, and willow.

Occurrence: Collections from New England, New York, New Jersey, and Pennsylvania.

Totals received: Collections 148; larvae and pupae, 331; years, 15.

Larvae: June to October.

Pupae: Late summer to the next summer.

Adults: June to early August.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae or pupae
Diptera:				
<i>Achaetoneura frenchii</i> Will.....	200	10	29	145
<i>Compsilura concinnata</i> Meig.....	13	4	6	6
Tachinidae (unidentified puparia).....	2	1	1	2
Hymenoptera:				
<i>Apanteles teleae</i> Mues.....	*1	1	1	1
<i>Eremotylus macrurus</i> L.....	10	5	8	53
<i>Spilocryptus extrematis</i> Cress.....	*8	5	7	49

**AUTOMERIS IO FAB.**

Food plants: Various deciduous growths, such as aspen, paper birch, blackberry, wild black cherry, currant, black locust, and willow.

Occurrence: Collections from New England, New York, New Jersey, and Pennsylvania.

Totals received: Collections, 162; larvae, 946; years, 13.

Larvae: July to September.

Pupae: Fall to summer.

Adults: June and July.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Compsilura concinnata</i> Meig.....	32	7	17	94
<i>Phorocera claripennis</i> Macq.....	73	4	8	79
Tachinidae (unidentified puparium).....	1	1	1	20
<i>Zenillia formosa</i> A. and W.....	74	6	16	83
Hymenoptera:				
<i>Eremotylus macrurus</i> L.....	9	5	9	52
<i>Hyposoter fugitivus</i> Say.....	3	1	1	3
Ichneumonidae (dead larva).....	1	1	1	10

HEMILEUCA MAIA DRU. AND LUCINA HY. EDW.<sup>3</sup>

Food plants: American meadowsweet, oaks, wild cherry, and gray birch.

Occurrence: Collections from Maine, New Hampshire, Massachusetts, New York, and New Jersey. Quite abundant locally in the counties of Hillsboro, Merrimack, and Rockingham, N.H., in 1918, 1919, and 1921, also in the towns of Lunenburg and Townsend, Mass., in 1917, 1918, and 1919.

Totals received: Collections, 139; larvae, 12,576; years, 15.

Larvae: May to August.

Pupae: July to October.

Adults: September and October.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Belvosia bifasciata</i> Fab.	40	4	5	1,627
<i>Blepharipeza fulvipes</i> Bigot	562	8	20	3,463
<i>Compsilura concinnata</i> Meig.	33	8	14	1,125
<i>Phorocera claripennis</i> Macq.	16	3	3	1,524
Tachinidae (unidentified puparia)	31	4	6	1,952
<i>Winthemia</i> sp. (puparium)	1	1	1	290
<i>Zenillia vulgaris</i> Fall	1	1	1	100
<b>Hymenoptera:</b>				
<i>Apanteles hemileucae</i> Riley	*3	2	2	757
<i>Ephialtes (Itoplectis) conquisitor</i> Say	1	1	1	10
<i>Glypta erratica</i> Cress	1	1	1	400
<i>Glypta simplicipes</i> Cress	1	1	1	574
<i>Hyposoter fugitivus</i> Say	16	1	1	357
<i>Meteorus</i> sp.	2	1	2	379
<b>Nematoda:</b>				
<i>Mermithidae</i>	2	2	2	435

## FAMILY CERATOCA MPIDAE

## ANISOTA STIGMA FAB.

Food plants: Oaks, hazelnut.

Occurrence: Collections from Rhode Island, Connecticut, New York, and New Jersey.

Totals received: Collections, 8; larvae, 139; years, 5.

Larvae: Late July to September.

Pupae: Fall to July.

Adults: July.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Hymenoptera:</b>				
<i>Apanteles anisotae</i> Mues	*1	1	1	1
<i>Hyposoter fugitivus</i> Say	3	1	1	36

## ANISOTA SENATORIA S. AND A.

Food plants: Various oaks.

Occurrence: Collections from New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, and New Jersey. The records indicate it was very common in Middlesex County, N.J., 1922 to 1926, with local outbreaks recorded for 1922, 1924, and 1926; also in Windham and New London Counties, Conn., from 1919 to 1922; Clinton and Jefferson Counties, N.Y., 1925

\* These species were not separated in the larval instars.

to 1928; and Addison and Franklin Counties, Vt., 1923 to 1925. The local outbreaks varied from a few trees to several acres in extent.

Totals received: Collections, 64; larvae, 8,949; years, 11.

Larvae: July to October.

Pupae: Fall to summer.

Adults: June to August.

### Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Achaetoneura anisotae</i> Webber	99	8	15	4,743
<i>Compsilura concinnata</i> Meig	5	3	3	511
<i>Dexodes aurifrons</i> Town	1	1	1	200
<i>Phorocera claripennis</i> Macq.	26	5	7	2,707
<i>Eumasicera sternalis</i> Coq.	33	6	12	3,722
Tachinidae (unidentified puparia)	27	4	6	2,069
<i>Winthemia datanae</i> Town (var. B.)	24	5	7	2,362
<b>Hymenoptera:</b>				
<i>Apanteles anisotae</i> Mues.	*10	4	5	2,024
<i>Habronyx</i> sp.	1	1	1	170
<i>Hyposoter fugitivus</i> Say	83	5	10	4,265

### ANISOTA VIRGINIENSIS DRU.

Food plant: Oak.

Occurrence: Collections from New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania.

Totals received: Collections, 10; larvae, 176; years, 6.

Larvae: Late June to September.

Pupae: August to June.

Adults: June to July.

### Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Compsilura concinnata</i> Meig	1	1	1	10
Tachinidae (unidentified puparium)	1	1	1	30

### ANISOTA RUBICUNDA FAB.

Food plant: Maple.

Occurrence: Collections from New Hampshire, Vermont, Massachusetts, Connecticut, New York, New Jersey, and Pennsylvania. Larvae reported as very common in the White Mountain district of New Hampshire, 1919 to 1921, and common in central New Jersey 1926-28. A local outbreak was reported in 1917 at Worthington, Mass.

Totals received: Collections, 114; larvae, 2,766; years, 14.

Larvae: June to October.

Pupae: Mostly fall to June, though some may be found every month of year.

Adults: May to August, and August and September.

Generations: The records show a late summer and a spring issuance of adults, indicating one generation and a partial second.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Achaetoneura anisotae</i> Webber	32	3	3	282
<i>Belvosia bifasciata</i> Fab.	2	1	1	300
<i>Compsilura concinnata</i> Meig.	1	1	1	142
<i>Masicera</i> sp.	1	1	1	30
<i>Phorocera claripennis</i> Macq.	3	3	3	175
<i>Eumasicera sternalis</i> Coq.	25	8	11	326
<i>Winthemia datanae</i> Town. (var. B.)	29	8	10	210
Hymenoptera:				
<i>Apanteles anisotae</i> Mues.	*3	2	2	123
<i>Habronyx</i> sp.	2	1	2	493
Nematoda:				
Mermithidae	1	1	1	80

*CITHERONIA REGALIS* FAB.

Food plants: Sumac, black walnut.

Occurrence: Collections from Westerly, R.I.; and Bridgewater, South Brunswick, and Hillsboro, N.J.

Totals received: Collections, 9; larvae, 11; years, 4.

Larvae: July to September.

Pupae: September to June.

Adults: Not reared.

*EACLES IMPERIALIS* DRU.

Food plants: Maple, oak, pine, sassafras.

Occurrence: Collections from Vermont, Rhode Island, New York, New Jersey, and Pennsylvania.

Totals received: Collections, 24; larvae, 101; years, 8.

Larvae: August and September.

Pupae: Fall to summer.

Adults: July.

*Parasite*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Belvosia townsendi</i> Ald.	12	1	3	29

**FAMILY SYNTOMIDAE***SCEPSIS FULVICOLLIS* HBN.

Food plants: Grasses.

Occurrence: One collection of five pupae from Vineyard Haven, Mass.

Pupae: Collected October 5.

Adults: Issued during winter in heated laboratory.

*LYCOMORPHA PHOLUS* DRU.

Food plants: Lichens on rocks.

Occurrence: One collection of three larvae from Saugus, Mass.

Larvae: June and July.

Pupae: July and August.

Adults: August.

## CTENUCHA VIRGINICA CHARP.

Food plants: Grasses and weeds.

Occurrence: Collections from Maine, New Hampshire, Vermont, Massachusetts, and Rhode Island.

Totals received: Collections, 64; larvae, 839; years, 13.

Larvae: September to July. (Hibernate as partly grown larvae.)

Pupae: June to August.

Adults: June to August.

Generations: One.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Compsilura concinnata</i> Meig.	1	1	1	11
Tachinidae (unidentified puparia)	2	1	1	1
Hymenoptera:				
<i>Amblyteles ctenuchae</i> Cush.	2	1	1	11
<i>Apanteles nigricornis</i> Mues.	*34	3	11	140
<i>Labrorychus</i> sp.	8	2	2	61
<i>Meteorus</i> sp.	2	2	2	27

## FAMILY ARCTIIDAE

## CELAMA TRIQUETRANA FITCH

Food plant: Wild black cherry.

Occurrence: Two collections of two larvae from Bedford, Mass., and Bradford, R.I., in 1918.

Larvae: June and July.

Adults: Not reared.

## HYPOPREPIA FUCOSA HBN.

Food plants: Reported on lichens.

Occurrence: Two collections of two larvae from Bristol, Vt., and Epping, N.H., in 1923.

Larvae: June and July.

Pupae: July.

Adults: July and August.

## CYCΝΙΑ TENERA HBN.

Food plants: Dogbane, milkweed.

Occurrence: Collections from Connecticut, New York, and New Jersey.

Totals received: Collections, 29; larvae, 2,207; years, 7.

Larvae: June to October.

Pupae: Found every month.

Adults: August and September, and late May to July.

Generations: Two.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Archytas aterrima</i> Desv.	2	1	1	336
<i>Exorista mella</i> Walk.	29	2	8	1,858
Tachinidae (unidentified puparia)	2	2	2	178
<i>Zenillia ceratomiae</i> Coq.	54	3	7	1,461
Hymenoptera:				
<i>Apanteles ammalonis</i> Mues.	*80	3	13	2,129
<i>Eulimneria valida</i> Cress.	30	2	4	1,265
<i>Labrorychus analis</i> Say	1	1	1	4
<i>Therion waccagum</i> Vier.	6	2	2	13

## CYCNIA INOPINATUS HY. EDW.

Food plant: Milkweed.

Occurrence: Collections from New York, New Jersey, and Pennsylvania.

Totals received: Collections, 12; larvae, 28; years, 5.

Larvae: July to September.

Pupae: Fall to spring.

Adults: May and June.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
Zenillia ceratomiae Coq-----	2	1	1	2
Hymenoptera:				
Therion morio Fab-----	1	1	1	1
Therion sassacus Vier-----	1	1	1	2
Therion waccagum Vier-----	1	1	1	1

## HALISIDOTA CARYAE HARR.

Food plants: Apple, aspen, basswood, butternut, birch, cherry, elm, hickory, black locust, black walnut, willow.

Occurrence: Collections from New England, New York, New Jersey, and Pennsylvania. Usually gregarious through early larval instars.

Totals received: Collections, 183; larvae, 11,672; years, 14.

Larvae: July to October.

Pupae: Fall to spring.

Adults: Late May to early July.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
Achaetoneura frenchii Will-----	3	1	3	31
Blepharipeza adusta Loew-----	6	2	4	158
Bombyliomyia abrupta Wied-----	2	2	2	153
Compsilura concinnata Meig-----	66	8	15	835
Tachinidae (unidentified puparia)-----	8	1	1	10
Hymenoptera:				
Aphanistes nigrorufus Nort-----	3	1	1	46
Iseropus coelebs Walsh-----	1	1	1	12
Ophion sp-----	1	1	1	1

## HALISIDOTA MACULATA HARR.

Food plants: Alder, apple, aspen, birch, boxelder, wild black cherry, maple, willow.

Occurrence: Collections from Maine, Vermont, Massachusetts, and New York. Larvae solitary in habit.

Totals received: Collections, 153; larvae, 1,171; years, 8.

Larvae: July to October.

Pupae: Fall to spring.

Adults: Late May to July.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Blepharipeza adusta</i> Loew	8	2	6	107
<i>Bombyliomyia abrupta</i> Wied	41	6	18	510
<i>Compsilura concinnata</i> Meig	18	5	10	126
Tachinidae (unidentified puparia)	1	1	1	78
<b>Hymenoptera:</b>				
<i>Apanteles halisidotae</i> Mues	*58	5	35	380
<i>Labryrychus elongatus</i> Davis	65	5	13	391
<i>Therion morio</i> Fab.	1	1	1	1
Ichneumonidae (dead, immature)	5	4	4	39

## HALSIDOTA TESSELLARIS S. AND A.

Food plants: Apple, ash, aspen, basswood, beech, birch, butternut, cherry, elm, hawthorn, black locust, maple, oak, black walnut, willow.

Occurrence: Collections from New England, New York, New Jersey, and Pennsylvania. It was reported as quite abundant in Sullivan County, N.H., and Windsor County, Vt., in 1917.

Totals received: Collections, 259; larvae, 3,784; years, 14.

Larvae: July to October.

Pupae: Fall to summer.

Adults: June and July.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Achaetoneura aletiae</i> Riley	3	2	3	88
<i>Achaetoneura frenchii</i> Will	2	1	1	24
<i>Blepharipeza adusta</i> Loew	1	1	1	2
<i>Bombyliomyia abrupta</i> Wied	16	4	9	399
<i>Compsilura concinnata</i> Meig	14	8	11	211
<i>Anetia hyphantriae</i> Tot	56	9	19	565
<i>Phorocera claripennis</i> Macq	1	1	1	6
<i>Exorista mella</i> Walk	4	2	3	12
Tachinidae (unidentified puparia)	62	7	13	635
<i>Zenillia</i> n. sp	2	2	2	18
<b>Hymenoptera:</b>				
<i>Amblyteles unifasciatorius</i> Say	1	1	1	44
<i>Apanteles phobetri</i> Roh	*25	8	17	589
<i>Epiurus nigrifrons</i> Vier	1	1	1	12
<i>Ophion</i> sp	3	3	3	38
<i>Paniscus unguicularis</i> Cush	1	1	1	5
<i>Therion</i> sp	4	2	3	7
<b>Nematoda:</b>				
Mermithidae	2	1	1	15

## HALSIDOTA HARRISI WALSH

Food plant: Sycamore.

Occurrence: Collections from Massachusetts, Pennsylvania, and New Jersey. Found very common in 1929 at Philadelphia, Pa., and several localities in New Jersey.

Totals received : Collections, 18; larvae, 582; years, 8.

Larvae: July to October.

Pupae: Fall to summer.

Adults: June and July.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Achaetoneura aletiae</i> Riley-----	95	1	3	320
<i>Blepharipeza adusta</i> Loew-----	4	1	2	287
<i>Compsilura concinnata</i> Meig-----	1	1	1	23
<i>Anetia hyphantriae</i> Tot-----	2	1	2	179
<i>Exorista mella</i> Walk-----	8	1	3	159
<b>Hymenoptera:</b>				
<i>Apanteles phobetri</i> Roh-----	*10	5	7	382
Paniscini (cocoons)-----	2	1	2	287

**HALSIDOTA SP.**

Occurrence: 1 collection of 15 cocoons from Hampden, Maine, in April 1924.  
No adults issued.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae or pupae
<b>Hymenoptera:</b>				
<i>Ephialtes pedalis</i> Cress-----	1	1	1	15
<i>Iseropus coelebs</i> Walsh-----	*1	1	1	15

**EUBAPHE OPELLA BELMARIA EHRM.**

Food plants: Not listed.

Occurrence: One larva collected at Mattapoisett, Mass.

Larva: May and June.

Pupa: July.

Adult: Late July.

**PARASEMIA PARTHENOS HARR.**

Food plant: Boxelder.

Occurrence: Collections from Monroe and Williamstown, Mass., and St. John, Maine.

Totals received: Collections, 4; larvae, 4; years, 2.

Larvae: August to spring.

Pupae and adults not reared.

**PHRAGMATOBIA FULIGINOSA RUBRICOSA HARR.**

Food plants: Marsh grass, swamp milkweed, and herbaceous plants.

Occurrence: Collections from Maine, New Hampshire, Vermont, Massachusetts, and Connecticut. Local outbreaks occurred at Revere, Mass., in 1916 and 1920. The larvae are often found active early in March before the snow has entirely disappeared.

Totals received: Collections, 34; larvae, 1,535; years, 13.

Larvae: August to April. (Much difficulty has been experienced in hibernating this species successfully at the laboratory.)

Pupae: May to July.

Adults: Late May to early August.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Tachinidae (unidentified puparium)</i> -----	1	1	1	523
<i>Zenillia affinis</i> Fall-----	6	2	4	193

## DIACRISIA VIRGINICA FAB.

Food plants: Garden crops, weeds, and various deciduous growths.

Occurrence: Collections from New England, New York, New Jersey, and Pennsylvania.

Totals received: Collections, 250; larvae and pupae, 2,366; years, 15.

Larvae: June to October.

Pupae: July to October, and fall to spring.

Adults: Late May to early July, and late July to October.

Generations: Two.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae or pupae
Diptera:				
<i>Achaetoneura frenchii</i> Will-----	1	1	1	3
<i>Bombyliomyia abrupta</i> Wied-----	5	3	4	4
<i>Compsilura concinnata</i> Meig-----	62	12	31	1,001
<i>Ernestia</i> sp-----	1	1	1	48
<i>Anetia hyphantria</i> Tot-----	2	1	2	280
<i>Sturmia rericorum</i> Town-----	22	4	6	168
<i>Exorista mella</i> Walk-----	116	7	25	827
<i>Tachinidae (unidentified puparia)</i> -----	11	4	4	220
<i>Thelaira leucozona</i> Panz-----	4	3	3	109
<i>Winthemia datanae</i> Town. (var. C.)-----	29	5	9	384
<i>Zenillia</i> n. sp-----	7	1	3	291
<i>Zenillia reclinata</i> A. and W-----	34	7	10	251
Hymenoptera:				
<i>Elachertus marylandicus</i> Gir-----	*13	2	3	21
<i>Hyposoter pilosulus</i> Prov-----	3	3	3	119
<i>Psychophagus omnivorus</i> Walk-----	*2	1	1	206
<i>Rogas</i> sp-----	2	2	2	9
<i>Therion morio</i> Fab-----	23	6	10	365

## ISIA ISABELLA S. AND A.

Food plants: Plantain and various weeds.

Occurrence: Collections from New England, New York, New Jersey, and Pennsylvania.

Totals received: Collections, 165; larvae, 1,138; years, 15.

Larvae: July to May. (Hibernate as nearly full-grown larvae.)

Pupae: May and June, and in New Jersey also late July and August.

Adults: May to early July, and in New Jersey August also.

Generations: In New England one, but in New Jersey at least a partial second.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Parachaeta fusca</i> Town	3	2	2	117
<i>Exorista mella</i> Walk	11	3	4	120
Tachinidae (unidentified puparium)	1	1	1	1
<i>Winthemia (?) datanae</i> Town	1	1	1	2
<i>Zenillia affinis</i> Fall	8	3	4	89
<b>Hymenoptera:</b>				
<i>Amblyteles centrator</i> Say	1	1	1	1
<i>Campoplegidea</i> sp.	1	1	1	30
<i>Eulimneria valida</i> Cress	1	1	1	1

## HYPHANTRIA CUNEA DRU.

Food plants: Apple, wild black cherry, elm, and various other deciduous growths.

Occurrence: Collections from New England, New York, and New Jersey. Each year it is reported as abundant in some sections of New England, New York, or New Jersey.

Totals used: Collections, 259; larvae, 56,096; years, 14. Many more collections were received but were not used for these records.

Larvae: June to October.

Pupae: July to spring and early summer.

Adults: Middle of May to early July, also in New Jersey late July and August.

Generations: In New England, one. In southern New York and New Jersey, at least a partial second, as larvae collected in June and early July have produced adults in late July and August and also in June of the next year.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Achaetoneura aleiae</i> Riley	5	1	3	7,600
<i>Achaetoneura frenchii</i> Will	11	1	3	7,900
<i>Bombyliomyia abrupta</i> Wied	9	3	5	131
<i>Compsilura concinnata</i> Meig	12	6	10	784
<i>Ernestia ampelus</i> Walk	12, 149	13	160	46, 151
<i>Anetia hyphantriae</i> Tot	36	6	13	19,972
<i>Phorocera claripennis</i> Macq	3	1	2	6,600
Tachinidae (unidentified puparia)	30	3	12	1,648
<i>Winthemia</i> sp. (puparium)	1	1	1	50
<i>Zenillia blanda</i> O. S.	25	7	13	13,106
<i>Zenillia protuberans</i> A. and W.	1	1	1	300
<i>Zenillia virilis</i> A. and W.	2	1	2	8,000
<b>Hymenoptera:</b>				
<i>Amblyteles brevicinctor</i> Say	1	1	1	1,000
<i>Amblyteles pullatus</i> Cress	11	1	1	1,000
<i>Apanteles hyphantriae</i> Riley	1, 187	9	43	20,334
<i>Campoplegini</i> (cocoons)	9	1	5	926
<i>Casinaria orgyiae</i> How	1	1	1	164
<i>Elachertus hyphantriae</i> Cwfd	*5	1	1	300
<i>Elachertus marylandicus</i> Gir	*3	1	1	300
<i>Ephialtes (Itolectis) conquistor</i> Say	1	1	1	3,600
<i>Eulimneria valida</i> Cress	647	13	61	29,641
<i>Hyposoter fugitivus</i> Say	43	5	14	2,791
<i>Hyposoter pilosulus</i> Prov	302	11	43	24,949
<i>Labrorychus</i> sp.	2	1	1	150
<i>Meteorus bakeri</i> C. and D	30	3	4	1,333
<i>Meteorus hyphantriae</i> Riley	795	6	30	26,386
<i>Meteorus</i> sp. (cocoons)	2	1	2	165
<i>Neonortonia major</i> Cress	1	1	1	50
<i>Ophionini</i> (cocoons)	2	1	2	167
<i>Rogas hyphantriae</i> Gah	71	4	7	1,907
<i>Therion sassacus</i> Vier	43	8	17	13,987
<b>Nematoda:</b>				
<i>Mermithidae</i>	1	1	1	17

## ESTIGMENE ACREA DRU.

Food plants: Garden truck and various weeds.

Occurrence: Collections from New England, New York, New Jersey, and Pennsylvania.

Totals received: Collections, 366; larvae, 2,861; years, 15.

Larvae: July to October.

Pupae: Fall to summer.

Adults: June to July, and August.

Generations: One, with occasionally a second.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Compsilura concinnata</i> Meig-----	66	10	31	461
<i>Ernestia</i> sp-----	3	2	2	23
<i>Sturmia ricinorum</i> Town-----	129	11	32	369
<i>Exorista mella</i> Walk-----	19	5	6	343
<i>Thelaira leucozona</i> Panz-----	13	3	7	64
<i>Winthemia datanae</i> Town. (var C.)-----	83	9	24	57
<i>Zenillia affinis</i> Fall-----	5	2	2	19
<i>Zenillia reclinata</i> A. and W-----	194	6	29	913
<i>Zenillia</i> n. sp-----	1	1	1	1
Hymenoptera:				
<i>Dibrachys hemerocampae</i> Gir-----	*2	1	1	283
<i>Meteorus</i> sp. (cocoons)-----	2	1	1	32
<i>Neonortonia major</i> Cress-----	2	2	2	13
<i>Psychophagus omnivorus</i> Walk-----	*1	1	1	283
<i>Rogas</i> sp-----	1	1	1	5
<i>Therion morio</i> Fab-----	6	6	6	106

## ECPANTHERIA DEFLORATA FAB.

Food plants: Plantain and low plants, also bear oak.

Occurrence: Collections from New Hampshire, Massachusetts, and New Jersey.

Totals received: Collections, 5; larvae, 8; years, 3.

Larvae: Fall, winter, and spring.

Pupa: May.

Adults: Not reared.

## APANTESIS VIRGO L.

Food plants: Wild strawberry and other low plants.

Occurrence: Collections from Maine, New Hampshire, and Vermont.

Totals received: Collections, 3; larvae, 6; years, 3.

Larvae: Fall to early July.

Pupae: June and July.

Adults: July and August.

## APANTESIS INTERMEDIA STRETCH

Food plants: Not listed.

Occurrence: One larva from New London, N.H.

Larva: Fall to July.

Pupa: July and August.

Adult: August.

## APANTESIS DORIS BDV.

Food plants: Not listed.

Occurrence: One larva from Athol, Mass.

Larva: August and September. (Specimen inflated for Melrose Highlands laboratory.)

## APANTESIS ARGE DRU.

Food plants: Low plants.

Occurrence: Collections from Massachusetts, Connecticut, and Rhode Island.

Totals received: Collections, 6; larvae, 7; years, 4.

Larvae: June and July and fall to spring.

Pupae: April and May, also July and August.

Adults: April and May, and July and August.

Generations: Two.

## EUCHAETIAS EGLE DRU.

Food plant: Milkweed.

Occurrence: New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania.

Totals received: Collections, 243; larvae, 9,389; years, 14.

Larvae: July to late September.

Pupae: Fall to spring.

Adults: Late May to early August.

Generations: One.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Achaetoneura euchaetiae</i> Webber	352	12	86	4,894
<i>Bombyliomyia abrupta</i> Wied	4	1	1	56
<i>Compsilura concinnata</i> Meig	59	10	28	1,289
<i>Ernestia</i> sp.	3	1	1	61
<i>Phorocera claripennis</i> Macq	9	4	8	957
<i>Erorista mella</i> Walk	312	11	81	4,404
Tachinidae (unidentified puparia)	42	9	26	1,253
<i>Winthemia datanae</i> Town. (var. C.)	19	4	5	276
<i>Zenillia ceratomiae</i> Coq	45	6	15	1,602
<i>Zenillia futilis</i> O. S.	2	2	2	245
Hymenoptera:				
<i>Apanteles euchaetis</i> Ashm	*656	14	103	5,968
<i>Campoplegini</i> (cocoons)	4	2	3	91
<i>Eutimneria valida</i> Cress	52	5	9	826
<i>Hyposoter fugitivus</i> Say	34	3	4	618
<i>Hyposoter pilosulus</i> Prov	3	3	3	65
<i>Meteorus hyphantriae</i> Riley	2	2	2	59

## EUCHAETIAS OREGONENSIS STRETCH

Food plant: Dogbane.

Occurrence: Collections from Lynnfield and Wakefield, Mass.

Totals received: Collections, 2; larvae, 11; years, 2.

Larvae: June to August.

Pupae: July and August.

Adults: Late July and August.

## ARCTIA CAJA, VAR. AMERICANA HARR.

Food plants: Grasses.

Occurrence: Collections from Grafton, Vt., and Sandisfield, Mass.

Totals received: Collections, 2; larvae 2; years 2.

Larvae: Fall to early summer.

Pupae: July and August.

Adults: July and August.

## UTETHEISA BELLA L.

Food plant: Rattlebox.

Occurrence: Collections from vicinity of Somerville, N.J., where in 1922 and again in 1926 it appeared in local outbreaks so severe that it completely defoliated its food plant.

Totals received: Collections, 14; larvae, 3,086; years, 3.

Larvae: July to early October.

Pupae: Late July to October and through to spring.

Adults: June to late October.

Generations: Two.

### Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Phorocera claripennis</i> Macq.	17	2	4	2,130
<i>Sturmia ricinorum</i> Town.	1	1	1	625
Hymenoptera:				
<i>Psychophagus omnivorus</i> Walk.	*5	1	1	105

### HAPLOA CLYEMENE BROWN

Food plants: Apple, hickory, maple.

Occurrence: Collections from Beverly, Boxford, and Williamstown, Mass.

Totals received: Collections, 3; larvae, 13; years, 3.

Larvae: Fall to spring.

Pupae: June and early July.

Adults: July.

### HAPLOA LECONTEI GUER. INCLUDING FORM MILITARIS HARR.

Food plants: Birch, butterfly bush, cherry, oak, maple, serviceberry.

Occurrence: Collections from New Hampshire and Massachusetts. In the spring of 1918 larvae which proved to be the form *militaris* were reported as quite abundant on butterfly bush and serviceberry in one locality at North Abington, Mass.

Totals received: Collections, 12; larvae, 127; years, 6.

Larvae: Fall to July.

Pupae: May and June.

Adults: June to August.

### Parasite

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Zenillia</i> sp.	1	1	1	3

### MISCELLANEOUS UNIDENTIFIED ARCTIIDAE

Food plants: Various.

Occurrence: Collections from Maine, New Hampshire, Vermont, Massachusetts, Connecticut, and New Jersey.

Totals received: Collections, 20; larvae, 40; years, 9.

Larvae: May to November.

Adults: Not reared.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Bombyliomyia abrupta</i> Wied.	4	1	1	4
<i>Chaetogaedia analis</i> v.d.W.	1	1	1	1
<i>Compsilura concinnata</i> Meig.	9	3	5	7
<i>Sturmia ricinorum</i> Town.	5	1	1	1
Tachinidae (unidentified puparia)	2	2	2	3
<i>Winthemia datanae</i> Town. (var. C.)	1	1	1	1
<i>Zenillia recinata</i> A. and W.	16	2	2	16
<b>Hymenoptera:</b>				
<i>Amblyteles centrator</i> Say	1	1	1	1
<i>Apanteles diacrisiae</i> Gah.	*1	1	1	1
<i>Apanteles</i> sp. ( cocoons )	*1	1	1	1
<i>Elachertus marylandicus</i> Gir.	*1	1	1	1
<i>Hyposoter pilosulus</i> Prov.	2	1	2	2
<i>Neonortonia major</i> Cress.	1	1	1	1

## FAMILY AGARISTIDAE

## ALYPIA OCTOMACULATA FAB.

Food plants: Grape, Virginia creeper, Boston ivy.

Occurrence: Collections from New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, and New Jersey. There were several local outbreaks reported in Massachusetts from 1921 to 1929, but in each case the infested vines were growing in small gardens or on buildings in residential districts.

Totals received: Collections, 93; larvae, 3,878; years, 15.

Larvae: June to September.

Pupae: July and August, and July to next summer.

Adults: Late May to July, and July to August.

Remarks: In these rearings it was found that the last instar larvae would bore into and pupate successfully in cork, so this method has been continued each year. Occasionally pupae remain in a dormant state through 1 or more years. For example, a collection of larvae taken July 12, 1928, pupated on or before July 20, and from these adults issued August 1928; June 1929; June 1930; and June 1931.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Achaetoneura archippivora</i> Riley	1	1	1	65
<i>Chaetophlepsis tarsalis</i> Town.	173	8	21	1,702
<i>Compsilura concinnata</i> Meig.	161	11	29	2,301
Tachinidae (unidentified puparia)	14	5	5	115
<i>Winthemia rufopicta</i> Bigot	216	11	28	1,402
<i>Zenillia</i> n. sp.	74	11	28	2,268
<b>Hymenoptera:</b>				
<i>Macrocentrus uniformis</i> Prov.	1	1	1	3
<i>Paniscus geminatus</i> Say	1	1	1	11

## FAMILY NOCTUIDAE

## HELIOTHIS OBSOLETA FAB.

Food plants: Bean, cabbage, corn, and tomato.

Occurrence: Collections from Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, and New Jersey.

Totals received: Collections, 19; larvae, 79; years, 8.

Larvae: June to October.

Pupae: July to October.

Adults: July to October.

#### EUXOA MESSORIA HARR.

Food plants: Garden crops. (A cutworm.)

Occurrence: Collections from Dover, Mass., and East Hartford, Conn.

Totals received: Collections, 2; larvae, 8; years, 2.

Larvae: Collected in May and June.

Pupae: Late June and July.

Adults: August.

#### EUXOA TESSELLATA HARR.

Food plants: Unknown. (A cutworm.)

Occurrence: One larva collected May 26, from Edgartown, Mass.

Pupa: June and July.

Adult: July.

#### EUXOA OCHROGASTER GUEN.

Food plants: Garden crops. (A cutworm.)

Occurrence: Collections from Maine, Massachusetts, and Rhode Island.

Totals received: Collections, 6; larvae, 128; years, 3.

Larvae: Fall to early summer.

Pupae: Late June to July.

Adults: July to September.

#### Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Gonia sp.</i>	2	1	1	10
Hymenoptera:				
<i>Apanteles griffini</i> Vier.	*2	1	1	3
<i>Microplitis kewleyi</i> Mues.	*1	1	1	86

#### FELTIA VOLUBILIS HARV.

Food plant: Privet.

Occurrence: One larva collected October 31, at Melrose, Mass.

Larva: Fall to spring.

Pupa: May and June.

Adult: June.

#### AGROTIS YPSILON ROTT.

Food plants: Unknown. (A cutworm.)

Occurrence: One pupa collected July 1 at Revere, Mass.

Adult: July.

#### AGROTIS C-NIGRUM L.

Food plants: Garden crops. (A cutworm.)

Occurrence: Collections from Massachusetts and New York.

Totals received: Collections, 11; larvae, 22; years, 3.

Larvae: June to August. (Representatives of the summer brood only have been received.)

Pupae: July to September.

Adults: August and September.

*Parasite*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera: <i>Winthemia (?) rufopicta</i> Bigot.....	1	1	1	1

## AGROTIS SMITHII SNELL.

Food plants: Unknown. (A cutworm.)

Occurrence: Collections from Bangor, Maine; and Melrose, Mass.

Totals received: Collections, 2; larvae, 2; years, 2.

Larvae: Fall to May.

Pupae: June to August.

Adult: August.

## AGROTIS FENNICA TAUSCH.

Food plants: Strawberry and garden crops. (A cutworm.)

Occurrence: Collections from Augusta and Portland, Maine, and Dover, Mass. It was very abundant in these localities in 1925.

Totals received: Collections, 3; larvae, 101; years, 1.

Larvae: Fall to early June.

Pupae: June and July.

Adults: June and July.

*Parasite*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Hymenoptera: <i>Meteorus vulgaris</i> Cress.....	*1	1	1	73

## AGROTIS HARUSPICA GRT.

Food plant: Aspen.

Occurrence: One larva collected at Bangor, Maine, in June.

Pupa: June to July.

Adult: July.

## AGROTIS CLANDESTINA HARR. (UNICOLOR WALK.)

Food plants: Garden crops. (A cutworm.)

Occurrence: Collections from Framingham, Mass., and Middletown, R.I.

Totals received: Collections, 2; larvae, 3; years, 2.

Larvae: Fall to spring.

Adults: Not reared (two larvae inflated for the Melrose Highlands laboratory).

## LYCOPHOTIA MARGARITOSA HAW.

Food plants: Garden crops. (A cutworm.)

Occurrence: Collections from Maine, Massachusetts, Rhode Island, and New Jersey.

Totals received: Collections, 12; larvae, 20; years, 5.

Larvae: June to August.

Pupae: July to September.

Adults: August and September.

## BARATHRA CURIALIS SMITH

Food plants: Hollyhock, turnip. (A cutworm.)

Occurrence: Collections from Fort Kent and Frenchville, Maine; and Barre, Vt. Quite common in 1926 in the Maine localities.

Totals received: Collections, 3; larvae, 39; years, 1.

Larvae: July to September.

Pupae: Fall to June.

Adults: June.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Ernestia</i> sp. (? <i>bicarina</i> Tot.)-----	4	1	2	38
Hymenoptera:				
<i>Banchus flavescens</i> Cress-----	11	1	1	27

## SCOTOGRAMMA TRIFOLII ROTT.

Food plants: Plantain, willow.

Occurrence: Collections from Searsport, Maine; and Watervliet, N.Y.

Totals received: Collections, 2; larvae, 2; years, 2.

Larvae: July to September.

Pupae: Fall to June.

Adults: June.

## POLIA SUBJUNCTA G. AND R.

Food plants: Aspen, corn. (A cutworm.)

Occurrence: Collections from Dedham, Maine; and Melrose, Mass.

Totals received: Collections, 2; larvae, 3; years, 2.

Larvae: July to September.

Pupae: October to July.

Adults: July.

## POLIA LUTRA GUEN.

Food plants: Aspen and willow.

Occurrence: Three collections of three larvae in 1927 from Kingsbury and Mayfield, Maine.

Larvae: August to September.

Pupae: Late September to June.

Adults: June and July.

## POLIA LATEX GUEN.

Food plants: Apple, aspen, cherry, maple, oak.

Occurrence: Collections from Mayfield, Maine; Pelham and Tamworth, N.H.; Middlebury, Vt.; and Monroe, Mass.

Totals received: Collections, 5; larvae, 51; years, 3.

Larvae: July to September.

Pupae: September to spring.

Adults: May and June.

## POLIA ADJUNCTA BDV.

Food plants: Garden crops and weeds.

Occurrence: Collections from Maine, Massachusetts, Rhode Island, Connecticut, New York, and New Jersey.

Totals received: Collections, 41; larvae, 51; years, 11.

Larvae: June and July, and July to October.

Pupae: July and August, also fall to spring.

Adults: May and June, July and August.

Generations: Two.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Compsilura concinnata</i> Meig.	3	1	1	5
<i>Zenillia virilis</i> A. and W.	2	1	1	1
<b>Hymenoptera:</b>				
<i>Apanteles</i> sp.	*2	2	2	2

## POLIA LEGITIMA GRT.

Food plants: Aspen, aster, cherry, crucifers, goldenrod, sweetfern, willow.  
Occurrence: Collections from Maine, Massachusetts, Rhode Island, New York, New Jersey, and Pennsylvania.

Totals received: Collections, 84; larvae, 139; years 14.

Larvae: July to October.

Pupae: Fall to summer.

Adults: June and July.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Compsilura concinnata</i> Meig.	2	2	2	7
<i>Zenillia virilis</i> A. and W.	1	1	1	1
<b>Hymenoptera:</b>				
<i>Banchus flavovariegatus</i> Prov.	1	1	1	1
<i>Ophionini</i> (cocoons)	15	1	1	9
<i>Parabates cristatoides</i> Cush.	7	2	2	5

<sup>1</sup> Destroyed by rodents.

## POLIA ASSIMILIS MORR.

Food plants: Viburnum, willow.  
Occurrence: Collections from Orono, Maine, and Haverhill, Lynnfield, and Melrose, Mass.

Totals received: Collections, 4; larvae, 8; years, 3.

Larvae: August to October.

Pupae: Fall to June.

Adults: June.

## HYSSIA MODESTA MORR.

Food plants: Not listed.

Occurrence: One collection of six pupae from Reading, Mass., in May.

Adults: May.

## ERIOPYGA CYNICA GUEN.

Food plants: Not listed.

Occurrence: One collection of two pupae from Reading, Mass., in May.

Adult: May to June.

## Parasite

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of pupae
<b>Diptera:</b>				
<i>Tachinidae</i> (maggot)	1	1	1	2

## ERIOPYGA VECORS GUEN.

Food plants: Burdock. (A cutworm.)

Occurrence: One larva collected at Bridgewater, N.J., in July.

Pupa: July and August.

Adult: August.

## NEPHELODES EMMEDONIA CRAM (MINIANS GUEN.)

Food plants: Grasses and garden crops. (A cutworm.)

Occurrence: Collections from Maine, New Hampshire, Massachusetts, Rhode Island, and New Jersey.

Totals received: Collections, 28; larvae, 40; years, 12.

Larvae: Fall to August.

Pupae: July to September.

Adults: September.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
Zenillia futilis O.S.	1	1	1	3
Hymenoptera:				
Ophionini (cocoon)	1	1	1	2

## MORRISONIA CONFUSA HBN.

Food plants: Aspen, oak, willow.

Occurrence: Three collections of seven larvae from Boxford, Leominster, and Melrose, Mass.

Larvae: June to early August.

Pupae: Late summer to spring.

Adults: May.

## ORTHOSIA HIBISCI FORM NORMAL INSCIENS WALK.

Food plants: Apple, ash, birch, horsechestnut, oak, rhododendron, willow.

Occurrence: Collections from Massachusetts and Connecticut.

Totals received: Collections, 9; larvae, 22; years, 5.

Larvae: May to July.

Pupae: June to April.

Adults: April.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
Wagneria (?) vernata West	4	1	1	13
Tachinomyia sp.	1	1	1	13
Hymenoptera:				
Meteorus communis Cress	1	1	1	13

## SIDERIDIS NORMANI GRT.

Food plants: Deciduous forest growth.

Occurrence: One collection of four larvae from Adams, Mass.

Larvae: June to August.

Pupae: August to spring.

Adults: May.

## CERAMICA PICTA HARR.

Food plants: Garden crops, weeds, wild black cherry, and willow.

Occurrence: Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New Jersey, and Pennsylvania.

Totals received: Collections, 101; larvae, 3,158; years, 15.

Larvae: June to November.

Pupae: Fall to spring, and July to September.

Adults: May to June, and July to September.

Generations: Two.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Compsilura concinnata</i> Meig.	13	2	3	36
<i>Anetia hyphantriae</i> Tot.	9	1	1	175
Tachinidae (unidentified puparia)	10	3	5	244
<i>Winthemia (?) quadripustulata</i> Fab.	4	2	3	31
<i>Winthemia rufopicta</i> Bigot	20	5	6	
<b>Hymenoptera:</b>				
<i>Enicospilus purgatus</i> Say	1	1	1	52
<i>Microplitis mamestrae</i> Weed	37	6	8	604
Ophionini (cocoon)	4	3	4	181
<i>Sagariis dubitatus</i> Cress.	6	2	2	100

## CIRPHIS PSEUDARGYRIA GUEN.

Food plants: Not listed.

Occurrence: One larva collected at Lunenburg, Mass.

Larva: Fall to June.

Pupa: June to July.

Adult: July.

## CIRPHIS COMMOIDES GUEN.

Food plants: Not listed.

Occurrence: One larva collected at Grafton, N.H., in May.

Pupa: Late May to June.

Adult: Late June.

## CIRPHIS UNIPUNCTA HAW.

Food plants: Cereal and forage crops.

Occurrence: Collections from Maine, Vermont, and Massachusetts. There were several local outbreaks in eastern Massachusetts in 1914, but since then no infestations of importance have been reported.

Totals received: Collections, 20; larva, 1,128; years, 9.

Larvae: From fall through to spring and as late as August.

Pupae: July to September.

Adults: July to September.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Belvosia unifasciata</i> Desv.	2	2	2	176
<i>Compsilura concinnata</i> Meig.	109	2	8	1,080
<i>Blepharigena spinosula</i> Bigot	2	1	1	15
<i>Phorocera claripennis</i> Macq.	1	1	1	199
<i>Winthemia rufopicta</i> Bigot	46	1	6	916
<i>Zenillia vulgaris</i> Fall	4	1	2	296
<b>Hymenoptera:</b>				
<i>Apanteles militaris</i> Walsh	*27	1	2	346
Apanteles sp. (cocoon)	*1	1	1	16
<i>Meteorus communis</i> Cress.	2	2	2	126

## NELEUCANIA DIFFUSA WALK.

Food Plants: Corn and grass.

Occurrence: Two collections of one larva each in July from Dover and Lowell, Mass.

Pupae: July and August.  
Adults: July and August.

### CUCULLIA CONVEXPENNIS G. and R.

Food plants: Aster and goldenrod.

Occurrence: Collections from Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, New York, New Jersey, and Pennsylvania.

Totals received: Collections, 32; larvae, 38; years, 11.

Larvae: July to early October.

Pupae: Fall to summer.

Adults: June to August.

Generations: One; but apparently a second brood some years in New Jersey.

### Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
Tachinidae (dead maggot)	1	1	1	1
<i>Winthemia rufopicta</i> Bigot	4	1	1	1
Hymenoptera:				
<i>Microgaster</i> sp. (cocoon)	1	1	1	1
<i>Microplitis</i> n. sp.	2	1	2	2
Ophionini (cocoon)	1	1	1	2

### GRAPTOLITHA (INCLUDING DISPOSITA MORR. INNOMINATA SMITH, AND PETULCA GRT.)<sup>4</sup>

Food plants: Various deciduous growths.

Occurrence: Collections from New England, New York, and New Jersey. Sometimes these larvae may be collected in considerable numbers beneath burlap bands on trees.

Totals received: Collections, 154; larvae, 1,729; years, 15.

Larvae: May to early August.

Pupae: July to October.

Adults: Middle of July to late October.

### Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Compsilura concinnata</i> Meig	5	3	4	160
<i>Epalpus signifera</i> Walk.	5	2	2	175
<i>Ernestia</i> sp.	3	3	3	129
<i>Anetia hyphantriae</i> Tot.	58	6	13	1,008
<i>Wagneria helymus</i> Walk	5	1	1	41
<i>Wagneria sequax</i> Will.	28	5	5	162
<i>Phorocera claripennis</i> Macq.	6	2	2	179
<i>Sturmia scutellata</i> Desv.	1	1	1	2
Tachinidae (unidentified puparia)	8	4	5	275
<i>Tachinomyia</i> sp.	22	9	13	605
<i>Winthemia fumiferanae</i> Tot.	4	2	2	8
<i>Winthemia rufopicta</i> Bigot	235	6	17	1,144
Hymenoptera:				
<i>Campoplegidea diversus</i> Nort.	1	1	1	122
<i>Comedo hookeri</i> Cwfd.	*1	1	1	1
<i>Comedo</i> sp.	*1	1	1	1
<i>Meteorus communis</i> Cress.	7	2	3	157
<i>Meteorus hyphantriae</i> Riley	2	1	2	125
<i>Meteorus niveitarsus</i> Cress.	1	1	1	122
<i>Meteorus vulgaris</i> Cress.	*12	4	8	259
<i>Microplitis</i> n. sp. near <i>varicolor</i> Vier.	1	1	1	1
<i>Microplitis</i> sp. (cocoon)	1	1	1	15
<i>Ophion</i> sp.	1	1	1	1
Ophionini (cocoons)	3	2	2	200
<i>Paniscus geminatus sayi</i> Cush.	1	1	1	116

<sup>4</sup> It has been difficult to separate these species in the larval instars.

## GRAPTOLITHA HEMINA GRT.

Food plant: Black oak.

Occurrence: One larva collected at Princeton, N.J., in June.

Pupa: Middle of June to October.

Adult: Issued early October.

## GRAPTOLITHA FERREALIS GRT.

Food plant: Oak.

Occurrence: One larva collected at Hanover, Mass., in June.

Pupa: July to September.

Adult: Issued late September.

## GRAPTOLITHA BAILEYI GRT.

Food plant: Forest growth.

Occurrence: One larva collected at Adams, Mass., in June.

Pupa: July to September.

Adult: Issued late September.

## GRAPTOLITHA UNIMODA LINT.

Food plant: Wild cherry.

Occurrence: Collections from Hampden, Maine; Wakefield, Mass.; and Plainfield, N.J.

Totals received: Collections, 3; larvae, 5; years, 3.

Larvae: May and June.

Pupae: July to October.

Adults: Issued September and October.

## GRAPTOLITHA ANTENNATA WALK.

Food plants: Apple, maple, and other deciduous growths.

Occurrence: Collections from New England, New York, and New Jersey. A local outbreak occurred in woodland between Milton and South Hero, Vt., in 1924 and 1925, and at Fishkill, N.Y., in 1925.

Totals received: Collections, 163; larvae, 741; years, 15.

Larvae: May to July.

Pupae: July to September.

Adults: September to spring.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Compsilura concinnata</i> Meig.	3	3	3	5
<i>Ernestia</i> sp.	2	1	1	134
<i>Gonia</i> sp.	3	2	2	11
<i>Anetia hyphantriae</i> Tot.	3	2	3	11
<i>Tachinomyia</i> sp.	16	8	14	57
Tachinidae (unidentified puparia)	7	5	6	51
<i>Winthemia fumiferanae</i> Tot.	2	1	1	1
<i>Winthemia rufopicta</i> Bigot.	97	4	8	169
<i>Zenillia vulgaris</i> Fall.	2	1	1	1
<b>Hymenoptera:</b>				
<i>Apanteles</i> sp. ( cocoons )	2	1	2	5
<i>Meteorus hyphantriae</i> Riley	9	2	2	25
<i>Meteorus vulgaris</i> Cress.	* 2	1	1	64
<i>Microplitis</i> sp.	2	2	2	2
Ophionini ( cocoons )	3	3	3	6
<i>Paniscus geminatus</i> sayi Cuss.	3	2	2	7

## GRAPTOLITHA TEPIDA GR.T.

Food plants: Not listed.

Occurrence: One collection of four larvae from Dover, Mass., in June.

Pupae: July to October.

Adults: September and October.

## GRAPTOLITHA THAXTERI GR.T.

Food plant: Apple.

Occurrence: One larva collected at Becket, Mass., in July.

Pupae: August to October.

Adult: Early October.

## XYLENA NUPERA LINT.

Food plant: Cranberry.

Occurrence: Collections from Carver, Mass.

Totals received: Collections, 2; larvae, 9; years, 2.

Larvae: June and July.

Pupae: August and September.

Adults: September and October.

## Parasite

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera: <i>Winthemia rufopicta</i> Bigot-----	1	1	1	1

## EUMICHTIS DUCTA GR.T.

Food plants: Sweet fern and willow.

Occurrence: Two collections of one larva each, from Glenburn and Hancock, Maine, in September 1926.

Pupae: Middle of October to June.

Adult: June.

## EPIGLAEA APIATA GR.T.

Food plant: Cranberry.

Occurrence: One collection of 12 larvae from Carver, Mass., in June.

Pupae: July to September.

Adults: Late July to September.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera: <i>Cyrtophloeba coquilletti</i> Ald-----	1	1	1	12
<i>Winthemia (?) quadripustulata</i> Fab-----	1	1	1	12
<i>Winthemia (?) rufopicta</i> Bigot-----	1	1	1	12

CONISTRA SPP. (INCLUDING SIDUS GUEN. AND MORRISONI GR.T.) <sup>5</sup>

Food plants: Apple, wild cherry, oak, and weeds.

Occurrence: Collections from Maine, New Hampshire, Massachusetts, and Rhode Island.

Totals received: Collections, 36; larvae, 83; years, 13.

Larvae: May to July.

Pupae: July to fall.

Adults: Issue September to November.

<sup>5</sup> There has been some difficulty in separating the larvae of these species.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Cyrtophloeba coquilletti</i> Ald.	1	1	1	1
Tachinidae (unidentified puparia)	3	2	3	22
<b>Hymenoptera:</b>				
<i>Apanteles griffini</i> Vier.	*1	1	1	1
<i>Apanteles</i> sp.	1	1	1	4
<i>Hyposoter</i> sp. (cocoon)	1	1	1	10
<i>Meteorus vulgaris</i> Cress.	*1	1	1	11
<i>Microgaster scopelosomae</i> Mues.	*1	1	1	1

**CONISTRA DEVIA GRT.**

Food plants: Blackberry, goldenrod, and plantain.

Occurrence: Collections from Maine, New Hampshire, Massachusetts, and Connecticut.

Totals received: Collections, 18; larvae, 48; years, 4.

Larvae: May to July.

Pupae: Middle of July to October.

Adults: Issue September and October.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Ernestia</i> sp. (? <i>arcuata</i> Tot.)	11	1	7	19
<i>Wagneria sequax</i> Will.	11	1	1	2
<b>Hymenoptera:</b>				
<i>Microgaster scopelosomae</i> Mues.	*3	1	1	8

**CONISTRA INDIRECTA WALK.**

Food plant: Witch hazel.

Occurrence: Collections from New Hampshire, Massachusetts, New York, and New Jersey.

Totals received: Collections, 37; larvae, 266; years, 14.

Larvae: May to July.

Pupae: July to September.

Adults: Issue September and October.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Icteroptyx spinosa</i> Coq.	1	1	1	7
<i>Exorista mella</i> Walk.	5	4	4	50
Tachinidae (unidentified puparia)	5	4	4	33
<i>Winthemia fumiferanae</i> Tot.	2	1	1	10
<b>Hymenoptera:</b>				
Campoplegini (cocoons)	3	2	2	27
<i>Paniscus geminatus</i> Cush.	8	2	3	44

## PARASTICHTIS BICOLORAGO GUEN.

Food plant: Wild cherry.

Occurrence: Two collections of one larva each from Dover, N.H., and Lynnfield, Mass., in June 1922.

Pupae: July to September.

Adults: September and October.

## ATETHMIA PAMPINA GUEN.

Food plants: Beets.

Occurrence: One larva collected at Beverly, Mass., in June.

Pupa: July to September.

Adult: Late September.

## AMPHIPYRA PYRAMIDOIDES GUEN.

Food plants: Apple, cherry, hickory, oak, and other deciduous growths.

Occurrence: New England, New York, and New Jersey.

Totals received: Collections, 73; larvae, 151; years, 14.

Larvae: May to July.

Pupae: July and August.

Adults: July and August.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Compsilura concinnata</i> Meig-----	2	2	2	2
<i>Ernestia</i> sp-----	28	4	6	45
Tachinidae (unidentified puparia)-----	7	5	6	8
<i>Winthemia fumiferanae</i> Tot-----	1	1	1	30
<i>Winthemia</i> (?) <i>rufopicta</i> Bigot-----	4	1	1	6
Hymenoptera:				
<i>Apanteles</i> n. sp-----	*2	2	2	6
<i>Apanteles pyrophilae</i> Mues-----	*1	1	1	1
<i>Apanteles</i> sp. (cocoons)-----	*1	1	1	1
<i>Comedo smerinthii</i> Ashm-----	*2	1	2	2
<i>Meteorus</i> sp. (cocoon)-----	1	1	1	3

## SEPTIS ARCTICA BDV.

Food plants: Garden crops. (A cutworm.)

Occurrence: One collection of three larvae from Melrose, Mass., in May.

Pupae: June.

Adults: June and early July.

## TRACHEA TURBULENTA HBN.

Food plant: Greenbrier.

Occurrence: Collections from Massachusetts, Rhode Island, Connecticut, and New Jersey.

Totals received: Collections, 13; larvae, 1,712; years, 7.

Larvae: August to October. (Gregarious.)

Pupae: Fall to summer.

Adults: June to August.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Compsilura concinnata</i> Meig.	1	1	1	10
<i>Zenillia blanda</i> O.S.	13	4	5	1,374
<i>Zenillia virilis</i> A. and W.	2	2	2	685
<b>Hymenoptera:</b>				
<i>Apanteles hadenae</i> Mues.	*1	1	1	75
<i>Aphanistes hyalinus</i> Nort.	18	3	4	860
<i>Labryrychus</i> sp.	1	1	1	105
<i>Therion petiolatum</i> Davis	9	3	3	1,135

**TRACHEA MACTATA GUEN.**

Food plant: Meadowrue.

Occurrence: One larva collected at Melrose, Mass., in June.

Pupa: August to September.

Adult: Late September.

**EUPLEXIA EXOTICA STRAND.**

Food plant: Hollyhock.

Occurrence: Collections from Hermon, Maine; and Melrose, Mass.

Totals received: Collections, 2; larvae, 3; years, 1.

Larvae: June to August.

Pupae: Late July and August.

Adults: August to September.

**PERIGEA SP. NEAR SELENOSA GR. T.**

Food plant: Not listed.

Occurrence: One larva collected at Burlington, Mass., in June.

Pupa: Late June to August.

Adult: Late August.

**MACRONOCTUA ONUSTA GR. T.**

Food plant: Iris roots.

Occurrence: Collections from Dedham, Dover, and Westfield, Mass.

Totals received: Collections, 5; larvae, 35; years, 5.

Larvae: May to August.

Pupae: August to October.

Adults: September and October.

*Parasite*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Ceromasia senilis</i> Meig.	1	1	1	9

**SIDEMIA DEVASTATOR BRACE.**

Food plants: Various plants. (A cutworm.)

Occurrence: Collections from Maine and Massachusetts.

Totals received: Collections, 12; larvae, 26; years, 5.

Larvae: Fall to June and July.

Pupae: June to early September.

Adults: July to September.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
Tachinidae (unidentified puparia).....	7	2	2	6
Hymenoptera:				
<i>Berecyntus</i> sp.....	*1	1	1	2
<i>Meteorus vulgaris</i> Cress.....	*1	1	1	4

*CHUTAPHA PERICULOSA* GUEN.

Food plant: Not listed (found in forest).

Occurrence: One larva collected at Tyringham, Mass., in May.

Pupa: Late June to July.

Adult: July.

*CALLOPISTRIA MONETIFERA* GUEN.

Food plant: Not listed (found in woodland).

Occurrence: One larva collected at Wellesley, Mass., in July.

Pupa: July.

Adult: Late July.

*AGRIOPODES FALLAX* H-S.

Food plant: *Viburnum prunifolium*.

Occurrence: One larva collected at Lawrence, Mass., in September.

Pupa: Late September to June.

Adult: June.

*ACRONYCTA PARALLELA* GRT.

Food plants: Not listed.

Occurrence: One larva collected at Somerville, N.J., in June.

Pupa: Late June to July.

Adult: July.

*ACRONYCTA OVATA* GRT.

Food plant: Oak.

Occurrence: Collections from Dover, N.H., and Old Bridge, N.J.

Totals received: Collections, 2; larvae, 2; years, 2.

Larvae: August to October.

Pupae and adults not reared. (Adults collected in early July.)

*ACRONYCTA HAESITATA* GRT.

Food plant: White oak.

Occurrence: One larva collected at Sparrow Bush, N.Y., in August.

Pupa: Late August to June.

Adult: Late June.

*ACRONYCTA FRAGILIS* GUEN.

Food plant: Yellow birch.

Occurrence: Collections from Cranberry Lake, N.Y.

Totals received: Collections, 2; larvae, 2; years, 1.

Larvae: Late July to September.

Pupae: September to July.

Adults: July.

*ACRONYCTA CLARESCENS* GUEN.

Food plant: Wild black cherry.

Occurrence: One larva collected at Hillsboro, N.J., in July.

Pupa: July.

Adult: Late July.

Generations: Apparently two in New Jersey.

## ACRONYCTA INCLARA SMITH.

Food plants: Forest growth.

Occurrence: Collections from New Ashford, Mass.

Totals received: Collections, 2; larvae, 6; years, 1.

Larvae: September and October. (One larva inflated for the Melrose Highlands laboratory.)

Pupae and adults not reared.

## ACRONYCTA SUPERANS GUEN.

Food plants: Apple, aspen, birch, cherry, hawthorn, rose.

Occurrence: Collections from Maine, Massachusetts, and Connecticut.

Totals received: Collections, 23; larvae, 49; years, 8.

Larvae: June to October.

Pupae: Fall to June, and July to August.

Adults: June, and late July and August.

Generations: Two.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Compsilura concinnata</i> Meig-----	8	2	3	3
Tachinidae (unidentified puparia)-----	7	1	1	1
Hymenoptera:				
<i>Rogas stigmator</i> Say-----	*3	1	1	4

## ACRONYCTA IMPLETA WALK.

Food plants: Apple, willow, and other deciduous growths.

Occurrence: Collections from Maine, New Hampshire, Vermont, Massachusetts, New York, and New Jersey.

Totals received: Collections, 18; larvae, 21; years, 8.

Larvae: May to September. Most of the larvae were taken from July to September, but there is one inflated specimen in the laboratory collection dated May 17, 1921, from New Jersey.

Pupae: August to spring.

Adults: June and July. Undoubtedly much earlier in New Jersey.

Generations: It would appear that there is at least a partial second generation in New Jersey, but only one in New England.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Compsilura concinnata</i> Meig-----	2	1	1	1
<i>Eumasicera</i> sp. near <i>sternalis</i> Coq-----	5	1	1	1
<i>Winthemia</i> (?) <i>datanae</i> Town-----	1	1	1	2

## ACRONYCTA FURCIFERA GUEN.

Food plants: Wild black cherry, apple.

Occurrence: Collections from New England, New York, and New Jersey.

Totals received: Collections, 92; larvae, 168; years, 11.

Larvae: Late May to September.

Pupae: Late June and July, and fall to spring.

Adults: May to middle of July, and July and August.

Generations: Two.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Compsilura concinnata</i> Meig.	28	8	18	45
Tachinidae (unidentified puparium)	1	1	1	1
<i>Zenillia</i> sp.	3	1	2	10
<b>Hymenoptera:</b>				
<i>Apanteles</i> sp. (cocoons)	2	2	2	6
<i>Comedo</i> sp.	*2	2	2	2
<i>Meteorus</i> sp.	1	1	1	3
Ophionini (cocoon)	1	1	1	3
<i>Rogas quebecensis</i> Prov.	3	3	3	12

**ACRONYCTA GRISEA** WALK.

Food plants: Apple, aspen, willow.

Occurrence: Collections from Maine.

Totals received: Collections, 20; larvae, 33; years, 5.

Larvae: August and September.

Pupae: Fall to summer.

Adults: June and July.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Zenillia lobeliae</i> Coq.	4	1	3	3
<i>Zenillia virilis</i> A. and W.	2	1	1	1

**ACRONYCTA RADCLIFFEI** HARV.

Food plant: Apple.

Occurrence: One larva, collected at Sandy Bay, Maine, in September, inflated for the Melrose Highlands laboratory.

**ACRONYCTA FUNERALIS** G. AND R.

Food plants: Aspen, maple, and willow.

Occurrence: Collections from Kingsbury, Stockton, Wallagrass, Maine; Brooklyn, N.Y.; and Bridgewater, N.J.

Totals received: Collections, 5; larvae, 5; years, 4.

Larvae: July to September.

Pupae: August to late spring.

Adults: June.

**ACRONYCTA MORULA** G. AND R.

Food plant: Apple.

Occurrence: Collections from La Grange, Maine; Keene, N.H.; and Grafton, Vt.

Totals received: Collections, 3; larvae, 3; years 3.

Larvae: July to September (all inflated for the Melrose Highlands laboratory).

**ACRONYCTA INTERRUPTA** GUEN.

Food plants: Apple, cherry, and elm.

Occurrence: Collections from Calais, Vt.; Coopersville, Chazy, and Conklin, N.Y.; Cranbury, Hillsboro, Manville, Readington, Somerville, and South Branch, N.J.

Totals received: Collections, 10; larvae, 17; years, 6.

Larvae: May to October.

Pupae: July and August, and fall to June.

Adults: May to June, and July to August.

Generations: Two.

#### *ACRONYCTA LEPUSCULINA* GUEN.

Food plants: Aspen, and willow.

Occurrence: Collections from Maine and New York.

Totals received: Collections, 15; larvae, 26; years, 5.

Larvae: July to October.

Pupae: Fall to June.

Adults: June and early July.

#### *Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Hymenoptera:</b>				
<i>Apanteles acronyctae</i> Riley-----	*1	1	1	1
<i>Microplitis</i> sp. (cocoon)-----	1	1	1	4

#### *ACRONYCTA LEPORINA VULPINA* GR. T.

Food plant: Aspen.

Occurrence: Collections from Greenville, Hampden, Kingsbury, Lily Bay, Sandy Bay, Stream, West Forks and Winn, Maine; and Cheshire, Mass.

Totals received: Collections, 11; larvae, 60; years, 2.

Larvae: August and September.

Pupae: Fall to summer.

Adults: June and July.

#### *Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Zenillia virilis</i> A. and W-----	25	2	5	19
<b>Hymenoptera:</b>				
<i>Apanteles</i> sp. (cocoons)-----	*1	1	1	4

#### *ACRONYCTA INNOTATA* GUEN.

Food plant: Yellow birch.

Occurrence: One larva collected at Cranberry Lake, N.Y., in July.

Pupa: August to June.

Adult: June.

#### *ACRONYCTA AMERICANA* HARR.

Food plants: Apple, box elder, elm, maple, oak, willow.

Occurrence: Collections from New England, New York, New Jersey, and Pennsylvania.

Totals received: Collections, 76; larvae, 146; years, 14.

Larvae: July to October.

Pupae: Fall to June.

Adults: June and early July.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Compsilura concinnata</i> Meig.	8	3	3	4
<i>Exorista mellae</i> Walk.	22	4	5	13
<b>Hymenoptera:</b>				
<i>Micropilis</i> n. sp.	2	1	2	2
<i>Ophionini</i> (cocoon)	1	1	1	7
<i>Rogas stigmator</i> Say	*3	3	3	7

**ACRONYCTA BETULAE RILEY**

Food plant: Birch.

Occurrence: Collections from Bound Brook, Hillsboro, and Somerville, N.J.

Totals received: Collections, 4; larvae, 81; years, 3.

Larvae: May to August.

Pupae: Late June to August.

Adults: May, and July to August.

Generations: At least a partial second generation.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Phorocera</i> near <i>Zenillia lobeliae</i> Coq.	7	1	1	74
<i>Tachinomyia</i> sp.	1	1	1	74

**ACRONYCTA DACTYLINA GRT.**

Food plants: Speckled alder, aspen, willow.

Occurrence: Collections from Maine, New Hampshire, Vermont, Massachusetts, New York, and Pennsylvania.

Totals received: Collections, 82; larvae, 173; years, 7.

Larvae: Late July to October.

Pupae: Fall to summer.

Adults: June and July.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Compsilura concinnata</i> Meig.	1	1	1	10
<i>Zenillia virilis</i> A. and W.	1	1	1	7
<b>Hymenoptera:</b>				
<i>Ophionini</i> (cocoon)	1	1	1	12
<i>Rogas stigmator</i> Say	*62	4	28	101

**ACRONYCTA IMPRESSA WALK.**

Food plants: Speckled alder, apple, aspen, azalea, birch, cherry, sweetfern, strawberry, willow.

Occurrence: Collections from New England, New York, and New Jersey.

Totals received: Collections, 105; larvae, 206; years, 13.

Larvae: June to October.

Pupae: July to September, and fall to spring.

Adults: May to June, and July to September.

Generations: Two.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Compsilura concinnata</i> Meig.	24	6	12	24
<i>Phorocera sternalis</i> Coq.	39	4	6	22
Tachinidae (unidentified)	1	1	1	6
<i>Zenillia virilis</i> A. and W.	4	1	1	6
<b>Hymenoptera:</b>				
<i>Microplitis hyphantriae</i> Ashm.	1	1	1	5
<i>Rogas stigmator</i> Say	*9	3	7	23
<i>Therion fuscipennis</i> Nort.	1	1	1	1

**ACRONYCTA RUBRICOMA GUEN.**

Food plant: Hackberry.

Occurrence: One collection of two larvae from Camden, N.J., in August.

Adults not reared. (One larva was inflated for the Melrose Highlands Laboratory.)

*Parasite*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Exorista mella</i> Walk.	1	1	1	2

**ACRONYCTA LONGA GUEN.**

Food plant: Wild black cherry.

Occurrence: One collection of eight larvae from Bound Brook, N.J., in July.

Pupae: July to spring.

Adults: May to June.

*Parasite*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Zenillia</i> sp.	2	1	1	8

**ACRONYCTA SPERATA GR.**

Food plant: Silver maple.

Occurrence: One larva collected at Dalton, Pa., in August.

Pupa: September to June.

Adult: June.

## ACRONYCTA OBLINITA S. AND A.

Food plants: Speckled alder, apple, aspen, cherry, boxelder, willow.

Occurrence: Collections from Maine, Massachusetts, Connecticut, and New York.

Totals received: Collections, 61; larvae, 129; years, 6.

Larvae: July to September.

Pupae: Fall to summer.

Adults: June and July.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Compsilura concinnata</i> Meig-----	15	4	8	15
<i>Zenillia virilis</i> A. and W-----	1	1	1	1
<b>Hymenoptera:</b>				
<i>Apanteles coralis</i> Mues-----	*1	1	1	1
<i>Metopius pollinctorius</i> Say-----	1	1	1	1
<i>Rogas stigmator</i> Say-----	*1	1	1	2

## ACRONYCTA LANCEOLARIA GRT.

Food plants: Speckled alder, wild black cherry, willow.

Occurrence: Collections from Maine and Massachusetts.

Totals received: Collections, 21; larvae, 40; years, 7.

Larvae: June to August.

Pupae: July to spring.

Adults: May and June.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Near Achaetoneura</i> (n. sp.)-----	86	6	12	31
<i>Compsilura concinnata</i> Meig-----	18	2	5	21

## MISCELLANEOUS UNIDENTIFIED SPECIES OF ACRONYCTA

Food plants: Various deciduous growths.

Occurrence: Collections from Maine, Massachusetts, Connecticut, New York, and New Jersey.

Larvae: June to September.

Adults: Not reared.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Compsilura concinnata</i> Meig-----	3	1	1	1
<i>Eumasicera</i> sp. near <i>sternalis</i> Coq-----	6	1	1	1
<i>Exorista mella</i> Walk-----	1	1	1	1
<i>Tachinidae</i> (unidentified puparia)-----	5	3	3	5
<b>Hymenoptera:</b>				
<i>Eremytulus macrurus</i> L-----	1	1	1	1
<i>Rogas stigmator</i> Say-----	*8	3	6	8

## SIMYRA HENRICI GRT.

Food plants: Cattail and marsh grasses.

Occurrence: Collections from Massachusetts, Rhode Island, New York, and New Jersey.

Totals received: Collections, 30; larvae, 352; years, 8.

Larvae: July to October.

Pupae: Fall to spring, and July and August.

Adults: May to June, and July to August.

Generations: Two.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
Near <i>Achaetoneura</i> (n. sp.)-----	12	4	6	137
<i>Compsilura concinnata</i> Meig-----	5	3	4	60
<i>Exorista mella</i> Walk-----	2	2	2	10
Hymenoptera:				
<i>Microplytis quadridentatus</i> Prov-----	5	2	2	113
<i>Rogas stigmator</i> Say-----	*10	1	2	89

## PRODENIA ORNITHOGALLI GUEN.

Food plant: Apple.

Occurrence: One larva collected at Wallingford, Conn., in September, and inflated for the Melrose Highlands laboratory.

## HYPPA XYLINOIDES GUEN.

Food plant: Virginia creeper.

Occurrence: Collections from Concord, N.H.; Hyde Park, Mass.; and Somerville, N.J.

Totals received: Collections, 3; larvae, 3; years, 3.

Larvae: June to July, and fall to early spring.

Pupae: July and August, April.

Adults: April and August.

## BALSA MALANA FITCH

Food plants: Apple and hawthorn.

Occurrence: Collections from Bangor, Hampden, Patten, and Portage, Maine.

Totals received: Collections, 5; larvae, 6; years, 2.

Larvae: July to September.

Pupae: Fall to June.

Adults: June.

## ACHATODES ZEAE HARR.

Food plant: Elder. (A borer.)

Occurrence: Collections from Ayer and Melrose, Mass.

Totals received: Collections, 2; larvae, 25; years, 2.

Larvae: May and June.

Pupae: July to September.

Adults: July to September.

## PYRRHIA UMBRA HUF.

Food plants: Aspen, bean, blackberry, sweetfern, raspberry, rose, and sumach.

Occurrence: Collections from Bangor and Kenduskeag, Maine; and Melrose and Natick, Mass.

Totals received: Collections, 7; larvae, 19; years, 7.

Larvae: June to late September.

Pupae: July to June.

Adults: June to August.

Generations: Records indicate at least a partial second brood. In 1922 a larva was collected July 3 and the adult issued July 31.

*Parasite*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Hymenoptera: <i>Hyposoter annulipes</i> Cress.	2	1	1	10

**PAPAIPEMA NEBRIS GUEN.**

Food plants: Columbine, corn, dahlia, hollyhock, larkspur, potato, rhubarb tomato.

Occurrence: Collections from New England and New Jersey.

Totals received: Collections, 65; larvae, 190; years, 13.

Larvae: May to August.

Pupae: July to October.

Adults: August to October.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Ceromasia senilis</i> Meig.	10	3	7	31
<i>Sturmia nigrata</i> Town.	4	2	3	8

**BAGISARA RECTIFASCIA GR.**

Food plant: Hazelnut.

Occurrence: One larva collected at Putnam, Conn., in June.

Pupa: July to June.

Adult: June.

**COSMIA CANESCENS BEHR.**

Food plant: Oak.

Occurrence: Collections from Melrose, Reading, Saugus, and Sherborn, Mass.; and Somerville, N.J.

Totals received: Collections, 6; larvae, 14; years, 4.

Larvae: May and June.

Pupae: June and July.

Adults: Late June and July.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Ernestia</i> sp.	2	1	1	7
Tachinidae (unidentified puparia)	3	1	1	2

**ARZAMA OBLIQUA WALK.**

Food plant: Cattail.

Occurrence: Collections from Belmont, Dedham, Peabody, Saugus, and Wakefield, Mass.

Totals received: Collections, 8; larvae, 75; years, 5.

Larvae: Fall to spring.  
 Pupae: May and June.  
 Adults: May and June.

*Parasite*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera: <i>Ceromasia senilis</i> Meig.	42	4	6	74

**EUTHISANOTIA GRATA FAB.**

Food plants: Grape, Virginia creeper.  
 Occurrence: Collections from Maine, New Hampshire, Vermont, Massachusetts, New York, and New Jersey.  
 Totals received: Collections, 12; larvae, 18; years, 4.  
 Larvae: August and September.  
 Pupae: Fall to summer.  
 Adults: Late June and July.

*Parasite*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera: <i>Zenillia eudryae</i> Town.	31	3	6	10

**PSYCHOMORPHA EPIMENIS DRU.**

Food plant: Grape.  
 Occurrence: Collections from Ayer and Wilmington, Mass.  
 Totals received: Collections, 2; larvae, 13; years, 2.  
 Larvae: May to July.  
 Pupae: July to spring.  
 Adults: April and May.

*Parasite*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera: <i>Zenillia</i> n. sp.	1	1	1	12

**NYCTEOLA REVAYANA SCOP.**

Food plants: Aspen, willow.  
 Occurrence: Collections from Bucksport, Detroit, Franklin, Glenburn, Hampden, and Lincoln, Maine; and Melrose, Mass.  
 Totals received: Collections, 8; larvae, 37; years, 4.  
 Larvae: June to August.  
 Pupae: July to September.  
 Adults: July to September.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Phorocera erecta</i> Coq.	2	1	1	6
<i>Zenillia fusilis</i> O. S.	1	1	1	3

**CATOCALA PIATRIX GR.**

Food plant: Walnut.

Occurrence: Collections from Essex, Vt.; Woonsocket, R.I.; and Yalesville, Conn.

Totals received: Collections, 3; larvae, 5; years, 3.

Larvae: May to July.

Pupae: July to September.

Adults: August to September.

**CATOCALA EPIONE DRU.**

Food plant: Aspen.

Occurrence: One larva collected at Medford, Mass., in June.

Pupa: Late June to July.

Adult: July.

**CATOCALA ANTINYMPHA HBN.**

Food plant: Sweetfern.

Occurrence: Collections from Maine and Massachusetts.

Totals received: Collections, 10; larvae, 60; years, 4.

Larvae: June and July.

Pupae: July and early August.

Adults: Late July and August.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Chaetophlepsis</i> sp.	1	1	1	4
<i>Winthemia</i> sp. (puparium)	1	1	1	25
Hymenoptera:				
<i>Hyposoter annulipes</i> Cress.	2	1	2	5
<i>Micropititis</i> n. sp.	3	1	1	25

**CATOCALA BADIA G. AND R.**

Food plant: Bayberry.

Occurrence: One collection of two larvae from Revere, Mass., in July.

Pupae: July and August.

Adults: August.

**CATOCALA HABILIS GR.**

Food plant: Hickory.

Occurrence: Collections from Swanton, Vt.; Melrose and Saugus, Mass.; Griswold, Conn.; and Bound Brook, N.J.

Totals received: Collections, 5; larvae, 126; years, 2.

Larvae: June and July.

Pupae: July and August.

Adults: Late July to September.

## CATOCALA FLEBILIS GRT.

Food plant: Not listed.

Occurrence: One larva collected at Fair Haven, Vt., in July.

Pupa: Middle of July to August.

Adult: August.

## CATOCALA NEOGAMA S. AND A.

Food plant: Walnut.

Occurrence: Collections from Bound Brook, South Brunswick, Somerville, and Montgomery, N.J.

Totals received: Collections, 4; larvae, 68; years, 2.

Larvae: May to August.

Pupae: July to September.

Adults: July to September.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Archytas aterrima</i> Desv.	5	1	2	22
Hymenoptera:				
<i>Meteorus hyphantriae</i> Riley	2	1	1	14
Nemotoda:				
<i>Mermithidae</i>	1	1	1	3

## CATOCALA ILIA CRAM.

Food plant: White oak.

Occurrence: One larva collected at Lunenburg, Mass., in June.

Pupa: July.

Adult: July.

## CATOCALA RELICTA WALK.

Food plant: Aspen.

Occurrence: Collections from Deering, N.H.; and Melrose and Templeton, Mass.

Totals received: Collections, 3; larvae, 4; years, 2.

Larvae: May to July.

Pupae: July.

Adults: July and August.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Actia</i> sp.	15	1	1	2
Hymenoptera:				
<i>Opion</i> sp.	1	1	1	2

## CATOCALA PARTA GUEN.

Food plants: Aspen and willow.

Occurrence: Collections from Maine, New Hampshire, Vermont, Massachusetts, and New Jersey.

Totals received: Collections, 14; larvae, 48; years, 7.

Larvae: May to July.

Pupae: July and August.

Adults: July and August.

*Parasite*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera: Tachinidae (unidentified puparium).....	1	1	1	4

*CATOCALA BRISEIS* EDW.

Food plants: Aspen and Willow.

Occurrence: Two collections of one larva each from Malden and Newberry, Mass., in June.

Pupae: July.

Adults: Late July.

*CATOCALA UNIJUGA* WALK.

Food plant: Aspen.

Occurrence: One collection of two larvae from Northfield, Vt., in June. (One larva was inflated for the Melrose Highlands laboratory.)

Pupa: July.

Adult: Late July.

*CATOCALA CONCUMBENS* WALK.

Food plant: Willow.

Occurrence: One larva collected at Ayer, Mass., in June.

Pupa: July.

Adult: Late July.

*CATOCALA AMATRIX* VAR. *NURUS* WALK.

Food plant: Aspen.

Occurrence: Collections from Watertown, Mass., and Hillsboro, N.J.

Totals received: Collections, 2; larvae, 4; years, 2.

Larvae: June to August.

Pupae: July and August.

Adults: August and September.

*CATOCALA COCCINATA* GRT.

Food plant: Black oak.

Occurrence: Collections from Dover and Reading, Mass.

Totals received: Collections, 2; larvae, 2; years, 1.

Larvae: May and June.

Pupae: June and July.

Adult: Late July.

*CATOCALA ULTRONIA* HBN.

Food plant: Black locust.

Occurrence: Collections from Bound Brook, N.J.

Totals received: Collections, 2; larvae, 29; years, 1.

Larvae: May and June.

Pupae: June and July.

Adults: July.

*CATOCALA POLYGAMA* GUEN.

Food plant: Not listed.

Occurrence: One larva collected at Grafton, N.H., in June.

Pupa: June and July.

Adult: July.

*CATOCALA MINUTA* EDW.

Food plant: Black locust.

Occurrence: Collections from Bound Brook, N.J.

Totals received: Collections, 2; larvae, 11; years, 2.

Larvae: May and June.

Pupae: Late June and July.

Adults: July.

*Parasite*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera: <i>Winthemia</i> sp. (puparia)	5	1	1	7

CATOCALA MICRONYMPHA FORM FRATERCULA G. AND R.

Food plant: Black locust.

Occurrence: One collection of 10 larvae from Bound Brook, N.J.

Larvae: May and June.

Pupae: June.

Adults: Late June and July.

*Parasite*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera: <i>Tachinomyia</i> sp.	4	1	1	10

MISCELLANEOUS UNIDENTIFIED CATOCALINAE

Food plants: Aspen, black locust, maple, oak, etc.

Occurrence: Collections from New Hampshire, Vermont, Massachusetts, and New Jersey.

Totals received: Collections, 21; larvae and pupae, 46; years, 10.

Larvae collected: June to September.

Adults: Not reared.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae and pupae
Diptera:				
<i>Actia</i> sp.	2	1	1	1
<i>Archytas</i> sp. (near <i>metallica</i> Desv.)	1	1	1	1
<i>Compsilura concinnata</i> Meig.	4	2	2	3
<i>Sturmia scutellata</i> Desv.	1	1	1	1
Tachinidæ (unidentified puparia)	13	7	9	14
<i>Tachinomyia</i> sp.	2	1	2	3
<i>Winthemia datanae</i> Town. (var. A.)	4	1	1	2
<i>Zenillia blanda</i> O. S.	1	1	1	14
Iymenoptera:				
<i>Amblyteles viola</i> Cress.	1	1	1	2
<i>Hyposoter annulipes</i> Cress.	1	1	1	5
Ophionini (cocoon)	1	1	1	1
<i>Psychophagus omnivorus</i> Walk.	*1	1	1	1

## EUPARTHENOS NUBILIS HBN.

Food plant: Black locust.

Occurrence: Collections from Melrose, Mass., and Bound Brook, N.J.

Totals received: Collections, 2; larvae, 16; years, 2.

Larvae: May to July.

Pupae: July to August, and fall to spring.

Adults: May to August.

Generations: One; with at least a partial second brood.

## Parasite

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera: Tachinidae (unidentified puparium)-----	1	1	1	1

## PARALLELIA BISTRARIIS HBN.

Food plant: Maple.

Occurrence: Collections from Massachusetts, Connecticut, New York, N. Jersey, and Pennsylvania.

Totals received: Collections, 16; larvae, 48; years, 4.

Larvae: July to September.

Pupae: Late summer to June.

Adults: June.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera: <i>Aubaeanaetia assimilis</i> Town-----	7	2	3	
Tachinidae (unidentified puparium)-----	1	1	1	
Hymenoptera: <i>Labryrichus</i> sp-----	1	1	1	
<i>Parabates smithi</i> Cush-----	1	1	1	

## ZALE LUNATA DRU.

Food plants: Hophornbeam, oak, and apple.

Occurrence: Collections from Westminster, Vt.; Athol, Orange, Westwood, a Williamstown, Mass.; and Hillsboro, N.J.

Totals received: Collections, 6; larvae, 6; years, 3.

Larvae: June to August.

Pupae: August to May.

Adults: August and May.

Generations: At least a partial second in New Jersey.

## ZALE UNDULARIS DRU.

Food plant: Black locust.

Occurrence: Collections from Melrose, Mass., and Somerville, N.J.

Totals received: Collections, 2; larvae, 2; years, 2.

Larvae: June and July.

Pupae: July, and August to April.

Adults: May and August.

Generations: One, with a partial second.

## COLOCASIA PROPINQUILINEA GRT.

Food plant: Not listed, but it was found in a hardwood forest.

Occurrence: One larva collected at Cheshire, Mass., in August and inflated for the Melrose Highlands laboratory.

## CHARADRA DERIDENS GUEN.

Food plants: Birch, maple, oak.

Occurrence: Collections from Maine, Massachusetts, Connecticut, and New Jersey.

Totals received: Collections, 12; larvae, 13; years, 7.

Larvae: July to October.

Pupae: Fall to early July.

Adults: Late June and July.

## Parasite

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Hymenoptera: <i>Apanteles charadrae</i> Mues.	*	2	2	2

## AUTOGRAPHHA ALIAS OTTOL.

Food plant: Spruce.

Occurrence: One larva collected at Framingham, Mass., in May.

Pupa: June.

Adult: Late June.

## AUTOGRAPHHA BRASSICAE RILEY

Food plants: Cabbage, cauliflower.

Occurrence: Collections from Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, and New Jersey.

Totals received: Collections, 109; larvae, 3,674; years, 14.

Larvae: June to November.

Pupae: July to June.

Adults: Late April to June and July to November.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Compsilura concinnata</i> Meig.	11	6	9	325
<i>Voria ruralis</i> Meig.	1	1	1	52
<i>Winthemia rufopicta</i> Bigot	3	2	2	77
Hymenoptera:				
<i>Amblyteles cincticornis</i> Cress.	18	2	6	1,206
<i>Copidosoma truncatellum</i> Dalm.	*12	5	9	1,301

## AUTOGRAPHHA FALCIFERA KBY.

Food plant: Celery.

Occurrence: Collections from Sherborn, Mass., and Roycefield, N.J.

Totals received: Collections, 2; larvae, 2; years, 2.

Larvae: June to August.

Pupae: August.

Adults: August (reared), July and September (collected).

Generations: Undoubtedly double brooded.

## AUTOGRAPHA BILOBA STEPH.

Food plants: Garden plants, larkspur.

Occurrence: One larva collected at Melrose, Mass., in June.

Pupa: Late June and July.

Adult: July.

Generations: Undoubtedly two.

## PLUSIA AEREOIDES GR. T.

Food plants: Goldenrod and nettle.

Occurrence: Collections from Bangor, Maine.

Totals received: Collections, 2; larvae, 4; years, 1.

Larvae: May and June.

Pupae: Late June and July.

Adults: July.

## ABROSTOLA URENTIS GUEN.

Food plant: Nettle.

Occurrence: Collections from Hale Eddy, N.Y., and Milford, Pa.

Totals received: Collections, 2; larvae, 3; years, 1.

Larvae: July to September.

Pupae: Late August to June.

Adults: June.

## RAPHIA FRATER GR. T.

Food plants: Aspen and willow.

Occurrence: Collections from Maine, New Hampshire, Massachusetts, and New Jersey.

Totals received: Collections, 30; larvae, 84; years, 9.

Larvae: July to September.

Pupae: August to June.

Adults: June (reared), July (collected).

## MELIPOTIS JUCUNDA HBN.

Food plant: Wild black cherry.

Occurrence: One collection of seven larvae from Elizabeth, N.J., in July.

Pupae: August.

Adults: August.

## Parasite

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Hymenoptera: <i>Paniscus pallens</i> CUSH.		1	1	1

## CALPE CANADENSIS BETH.

Food plant: Meadowrue.

Occurrence: Collections from Acton, Canton, Dover, Lynnfield, Melrose, Natick, Reading, and Saugus, Mass.

Totals received: Collections, 24; larvae, 159; years, 12.

Larvae: May and June.

Pupae: June and July.

Adults: Late June to July.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Compsilura concinnata</i> Meig.	4	3	3	12
<i>Winthemia</i> (?) <i>sinuata</i> Rein.	12	4	6	46
<b>Hymenoptera:</b>				
<i>Meteorus hyphantriae</i> Riley	1	1	1	2
<i>Meteorus</i> n. sp.	5	1	2	35

**SCOLIOPTERYX LIBATRIX L.**

Food plant: Willow.

Occurrence: Collections from Maine, Vermont, Massachusetts, New York, New Jersey, and Pennsylvania.

Totals received: Collections, 12; larvae, 19; years, 6.

Larvae: June to September.

Pupae: July to October.

Adults: August to October.

*Parasite*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Compsilura concinnata</i> Meig.	6	3	3	6

**PLUSIODONTA COMPRESSIPALPIS GUEN.**

Food plant: Moonseed vine.

Occurrence: One collection of six larvae from Wallingford, Conn.

Larvae: June to early September (one larva inflated for the Melrose Highlands laboratory).

Pupae: September to May.

Adults: Late May.

**EPIZEUXIS AMERICALIS GUEN.**

Food: Dried leaves (in squirrel's nest).

Occurrence: One collection of 18 larvae from Kingston, N.H.

Larvae: Fall to spring.

Pupae: May to July.

Adults: June and July.

**PLATHYPENA SCABRA FAB.**

Food plant: Bean foliage.

Occurrence: Collections from Forest Hills, Melrose, and Westboro, Mass.

Totals received: Collections, 8; larvae, 249; years, 3.

Larvae: July and August.

Pupae: August and September.

Adults: August and September.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Archytas aterrima</i> Desv.	1	1	1	50
<i>Compsilura concinnata</i> Meig.	17	1	3	165
<i>Winthemia sinuata</i> Rein.	5	1	2	125

## MISCELLANEOUS UNIDENTIFIED NOCTUIDAE

(Only the collections that have given parasites are included)

Occurrence: Collections from Maine, New Hampshire, Vermont, Massachusetts, Connecticut, New York, and New Jersey.

Totals received: Collections, 35; larvae and pupae, 141; years, 14.

Larvae: March to October.

Adults: Not reared.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae or pupae
Diptera:				
<i>Archytas aterrima</i> Desv.	1	1	1	1
<i>Compsilura concinnata</i> Meig.	4	2	3	3
<i>Cyrtophloeba coquilletti</i> Ald.	2	1	1	8
Near <i>Zenillia</i> sp.	13	1	1	2
<i>Ernestia</i> sp.	3	1	2	3
<i>Linnaemyia comta</i> Fall.	1	1	1	75
<i>Wagneria helymus</i> Walk.	17	3	4	4
<i>Wagneria sequax</i> Will.	3	1	1	1
<i>Voria ruralis</i> Meig.	4	1	1	1
<i>Sturmia scutellata</i> Desv.	1	1	1	1
Tachinidae (unidentified puparia)	4	2	2	2
<i>Tachinomyia</i> sp.	1	1	1	1
<i>Villa alternata</i> Say	1	1	1	1
<i>Zenillia vulgaris</i> Fall.	2	1	1	1
Hymenoptera:				
<i>Amblyteles laetus</i> Brulle	1	1	1	1
<i>Apanteles griffini</i> Vier.	*2	1	2	2
<i>Apanteles longicornis</i> Prov.	*1	1	1	1
<i>Apanteles noctuidiphagus</i> Mues.	*1	1	1	1
<i>Aphanistes</i> sp.	1	1	1	2
<i>Berecyntus</i> sp.	*2	1	1	13
<i>Campoplegidea diversus</i> Nort.	1	1	1	3
<i>Comedo brevicapitatus</i> C. and D.	*1	1	1	1
<i>Lissonota americana</i> Cress.	1	1	1	8
<i>Meteorus vulgaris</i> Cress.	*3	3	3	15
<i>Microplitis</i> n.sp.	1	1	1	1
<i>Therion morio</i> Fab.	1	1	1	1

## FAMILY NOTODONTIDAE

MELALOPHA APICALIS WALK.<sup>6</sup>

Food plants: Aspen, willow.

Occurrence: Collections from Cold Stream, Maine, and Boston, Mass.

Totals received: Collections, 2; larvae, 3; years, 2.

Larvae: June to early September.

Pupae: Late July to August, and September to early June.

Adults: Late May and June, and August.

Generations: The records indicate at least a partial second brood.

<sup>6</sup> *Ichthyura* of Barnes and McDunnough Check List.

## MELALOPHA INCLUSA HBN.

Food plant: Aspen.

Occurrence: Collections from New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania. Sometimes found locally abundant, though usually confined to a few trees.

Totals received: Collections, 75; larvae, 7,698; years, 11.

Larvae: June to early October.

Pupae: July to August, and August to spring.

Adults: May to early July, and July to August.

Generations: A partial second brood; sometimes two complete.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Achaetoneura melalophae</i> Allen	556	9	30	4,450
<i>Compsilura concinnata</i> Meig	16	3	5	430
<i>Exorista mella</i> Walk	5	1	2	221
Tachinidae (unidentified puparia)	7	3	4	139
<i>Winthemia</i> sp. (puparium)	1	1	1	63
Hymenoptera:				
<i>Apanteles sarrothripae</i> Weed	*42	7	16	2,372
Campoplegini (cocoon)	1	1	1	300
<i>Eulimneria valida</i> Cress	253	8	23	3,325
<i>Labryrychus analis</i> Say	61	6	11	1,488
<i>Psychophagus omnivorous</i> Walk	*3	1	1	193

## MELALOPHA STRIGOSA GR. T.

Food plants: Aspen and willow.

Occurrence: Collections from Maine, New Hampshire, and Massachusetts.

Totals received: Collections, 18; larvae, 168; years, 4.

Larvae: June to August, and August to September.

Pupae: Fall to early summer, and July to August.

Adults: May to July, and August.

Generations: At least a partial second brood.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Zenillia virilis</i> A. and W	1	1	1	1
Hymenoptera:				
<i>Apanteles sarrothripae</i> Weed	*5	1	1	7
<i>Eulimneria valida</i> Cress	2	1	2	52

## MELALOPHA ALBOSIGMA FITCH

Food plant: Aspen.

Occurrence: Collections from Maine, Massachusetts, and New Jersey.

Totals received: Collections, 11; larvae, 16; years, 4.

Larvae: June to July, and August to September.

Pupae: July, and fall to spring.

Adults: May and June, and late July to August.

Generations: At least a partial second brood.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Zenillia virilis</i> A. and W.	1	1	1	1
Hymenoptera:				
<i>Apanteles sarrothripae</i> Weed	*1	1	1	1

## MELALOPHA BRUCEI HY. EDW.

Food plants: Aspen and willow.

Occurrence: Collections from Hancock and Old Town, Maine.

Totals received: Collections, 2; larvae, 13; years, 2.

Larvae: June to July, and August to September.

Pupae: August, and fall to spring.

Adults: August, and May to June.

## DATANA MINISTRA DRU.

Food plants: Apple, birch, blueberry, basswood, cherry, elm, hawthorn, oak, and other deciduous growths.

Occurrence: New England, New York, New Jersey, and Pennsylvania. Gregarious and usually quite common.

Totals received: Collections, 392; larvae, 23,581; years, 14.

Larvae: July to October.

Pupae: Late summer to the next summer.

Adults: June to August.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Achaetoneura frenchii</i> Will	71	8	23	1,926
<i>Archytas metallica</i> Desv.	9	4	6	1,002
<i>Compsilura concinnata</i> Meig.	392	12	69	4,812
<i>Ernestia</i> sp.	6	4	4	322
<i>Phorocera claripennis</i> Macq.	70	6	19	1,640
<i>Phorocera leucaniae</i> Coq.	1	1	1	45
<i>Exorista mella</i> Walk.	2	2	2	223
Tachinidae (unidentified puparia)	39	7	19	1,111
<i>Winthemia datanae</i> Town.	256	9	28	1,714
Hymenoptera:				
<i>Heteropelma flavicorne</i> Brulle	24	7	10	631
<i>Hyposoter fugitivus</i> Say	1	1	1	150
<i>Labryrychus relictus</i> Nort.	7	4	6	379
<i>Psychophagus omnivorus</i> Walk.	*1	1	1	59

## DATANA ANGUSII G. AND R.

Food plants: Beech, gray birch, blueberry, butternut, hickory, and oaks.

Occurrence: Collections from Maine, New Hampshire, Vermont, Connecticut, New York, New Jersey, and Pennsylvania.

Totals received: Collections, 25; larvae, 1,343; years, 10.

Larvae: July to middle of October. Gregarious.

Pupae: Fall to summer.

Adults: Middle of June to early August.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Achaetoneura frenchii</i> Will.	3	1	1	257
<i>Archytas metallica</i> Desv.	4	1	1	34
<i>Compsilura concinnata</i> Meig.	9	2	2	37
<i>Phorocera claripennis</i> Macq.	5	1	3	524
<i>Winthemia datanae</i> Town.	248	2	5	614
Hymenoptera:				
<i>Meteorus datanae</i> Mues.	1	1	1	40

## DATANA MAJOR G. AND R.

Food plants: Andromeda, apple, azalea, blueberry, and huckleberry.

Occurrence: Collections from Massachusetts, Rhode Island, Connecticut, and New Jersey.

Totals received: Collections, 17; larvae, 543; years, 7.

Larvae: July to October.

Pupae: Fall to summer.

Adults: June and July.

*Parasite*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Compsilura concinnata</i> Meig.	7	3	3	85

## DATANA PERSPICUA G. AND R.

Food plant: Sumac.

Occurrence: Collections from Vermont, Rhode Island, Connecticut, New York, and New Jersey.

Totals received: Collections, 51; larvae, 3,725; years, 10.

Larvae: Late July to October.

Pupae: Fall to summer.

Adults: July to August.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Archytas metallica</i> Desv.	15	3	3	316
<i>Compsilura concinnata</i> Meig.	22	3	4	196
<i>Phorocera claripennis</i> Macq.	13	3	6	567
Tachinidae (unidentified puparia)	9	3	3	94
<i>Winthemia datanae</i> Town.	761	7	22	1,639
Hymenoptera:				
Campoplegini (unidentified sp.)	1	1	1	150
<i>Heteropelma flavigaster</i> Brullé	17	6	7	759
<i>Hyposoter clisiocampae</i> Weed	2	1	1	43
<i>Meteorus hypantiae</i> Riley	1	1	1	7

## DATANA INTEGERRIMA G. AND R.

Food plants: Butternut, black walnut, and hickory.

Occurrence: Massachusetts, Connecticut, New York, New Jersey, and Pennsylvania. Many reports received, especially from New Jersey and eastern Pennsylvania, show that this species often defoliates many large trees.

Totals received: Collections, 158; larvae, 26,151; years, 13.

Larvae: July to September.

Pupae: Late summer to the next summer.

Adults: June to August.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Achaetoneura frenchii</i> Will.	2	1	2	172
<i>Archytas metallica</i> Desv.	3	1	1	69
<i>Compsilura concinnata</i> Meig.	52	6	12	1,835
<i>Ernestia ampelus</i> Walk.	2	2	2	351
<i>Exorista mella</i> Walk.	11	3	4	1,236
<i>Phorocera claripennis</i> Macq.	36	4	10	4,727
<i>Sturmia scutellata</i> Desv.	1	1	1	217
Tachinidae (unidentified puparia)	31	6	10	2,771
<i>Winthemia datanae</i> Town	72	9	15	2,565
<i>Zenillia protuberans</i> A. and W.	1	1	1	100
<b>Hymenoptera:</b>				
<i>Aphanistes</i> sp.	8	1	2	1,177
<i>Heteropelma datanae</i> Riley	101	7	14	3,212
<i>Heteropelma flavicorne</i> Brullé	2	1	2	1,177
<i>Labryrhyrus relictus</i> Nort.	7	3	4	274
<i>Meteorus datanae</i> Mues.	18	2	4	1,956
Ophionini (cocoon)	1	1	1	877
Unidentified (dead in host pupae)	7	3	3	245

## DATANA CONTRACTA WALK.

Food plant: Sycamore.

Occurrence: One collection of seven larvae from Trenton, N.J., in August.

Pupae: September to July.

Adults: July.

## Parasite

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Hymenoptera:</b>				
<i>Heteropelma flavicorne</i> Brullé	1	1	1	7

## HYPERAESCHRA STRAGULA GRT.

Food plants: Aspen and willow.

Occurrence: Collections from Maine, Massachusetts, Connecticut, and New York.

Totals received: Collections, 20; larvae, 28; years, 8.

Larvae: June to October.

Pupae: Fall to spring, and sometimes July.

Adults: May to June, and July to August.

Generations: One; sometimes two.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
Tachinidae (unidentified puparia)	9	2	2	2
<i>Winthemia datanae</i> Town. (var. D)	13	2	2	6
Hymenoptera:				
<i>Apanteles</i> n. sp.	* 2	2	2	4

## NOTODONTA BASITRIENS WALK.

Food plant: Sugar maple.

Occurrence: One larva collected at Cranberry Lake, N.Y., in August.

Pupa: September to June.

Adult: June.

## PHEOSIA RIMOSA PACK.

Food plants: Aspen and willow.

Occurrence: Collections from Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, and New York.

Totals received: Collections, 56; larvae, 172; years, 10.

Larvae: July to October.

Pupae: Fall to summer.

Adults: June to July, and sometimes late in August.

Generations: One; occasionally a partial second brood.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Chaetophlepsis tarsalis</i> Town.	1	1	1	10
<i>Compsilura concinnata</i> Meig.	3	2	2	14
<i>Winthemia datanae</i> Town.	11	2	3	3
<i>Zenillia</i> n. sp.	80	5	12	62
Hymenoptera:				
<i>Apanteles</i> n. sp.	* 6	4	5	33
<i>Campoplegidea</i> sp.	1	1	1	5
Ophionini (cocoon)	1	1	1	7

## LOPHODONTA FERRUGINEA PACK.

Food plant: Birch.

Occurrence: Collections from New Ashford and Reading, Mass., in October.

Totals received: Collection, 3; larvae and pupae, 4; years, 2.

Pupae: Fall to summer.

Adults: July.

## LOPHODONTA ANGULOSA S. AND A.

Food plants: Oaks.

Occurrence: Collections from Belfast, Maine; Moultonboro, N.H.; Pownal, Vt.; Beverly, Melrose, and North Adams, Mass.; and Hillsboro, N.J.

Totals received: Collections, 9; larvae, 10; years, 6.

Larvae: August to October.

Pupae: Fall to early summer.

Adults: Late May to July.

## NADATA GIBBOSA S. AND A.

Food plants: Oaks.

Occurrence: Collections from Maine, New Hampshire, Massachusetts, Connecticut, New York, and New Jersey.

Totals received: Collections, 76; larvae, 107; years, 13.

Larvae: June to October.

Pupae: Late July to September, and through to next summer.

Adults: June to July, and August to September.

Generations: At least a partial second brood in the New England area.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Compsilura concinnata</i> Meig.	10	4	4	5
Tachinidae (unidentified puparium)	1	1	1	1

## NERICE BIDENTATA WALK.

Food plant: Elm.

Occurrence: Collections from Dover, Framingham, Melrose, Pittsfield, and Wakefield, Mass.; Manchester, Conn.; and Somerville, N.J.

Totals received: Collections, 11; larvae, 12; years, 7.

Larvae: June to September.

Pupae: Late July to August, and fall to spring.

Adults: May and August.

Generations: At least a partial second brood.

## SYMMERISTA ALBIFRONS S. AND A.

Food plants: Beech, elm, maple, and oaks.

Occurrence: Collections from New England, New York, and New Jersey.

Totals received: Collections, 64; larvae, 599; years, 13.

Larvae: July to October.

Pupae: Fall to spring.

Adults: May to July.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Compsilura concinnata</i> Meig.	1	1	1	7
<i>Sturmia scutellata</i> Desv.	1	1	1	68
Tachinidae (unidentified puparia)	2	2	2	42
<i>Winthemia</i> sp. (puparium)	1	1	1	32
Hymenoptera:				
Ophionini (cocoons)	2	1	1	10

## DASYLOPHIA ANGUINA S. AND A.

Food plants: Black locust and wild lupine.

Occurrence: Collections from Maybrook, N.Y.; Danbury and Putnam, Conn.; and Bernardsville and Paterson, N.J.

Totals received: Collections, 5; larvae, 6; years, 4.

Larvae: July to September.

Pupae: Fall to summer.

Adults: June to July.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Achaetoneura cuculliae</i> Webber	7	2	2	2
Tachinidae (unidentified puparia)	2	1	1	1

**HETEROCAMPA UMBRATA WALK.**

Food plant: Maple.

Occurrence: Collections from Tamworth and Sanbornton, N.H.; and Cheshire, Hawley, and Plainfield, Mass.

Totals received: Collections, 5; larvae, 12; years, 2.

Larvae: June to August.

Pupae: August to early summer.

Adults: June and July (adults were collected, but none reared).

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Achaetoneura</i> n.sp.	3	1	1	3
<i>Compsilura concinnata</i> Meig.	2	1	1	2

**HETEROCAMPA MANTEO DBL.**

Food plants: Basswood, beech, elm, hawthorn, and oak.

Occurrence: Collections from Maine, Massachusetts, and New York.

Totals received: Collections, 15; larvae, 158; years, 4.

Larvae: August to October.

Pupae: Fall to early summer.

Adults: June to July.

**HETEROCAMPA BIUNDATA WALK.**

Food plants: Beech, paper birch, wild black cherry, chokecherry, and maple.

Occurrence: Collections from Bangor, Boothbay, Corinth, Hermon, and Orono, Maine; Williamstown, Mass.; and Heuvelton, N.Y.

Totals received: Collections, 7; larvae, 8; years, 6.

Larvae: July to September.

Pupae: August to June.

Adults: June.

**HETEROCAMPA GUTTIVITTA WALK.**

Food plants: Beech and maple.

Occurrence: Collections from Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, New York, and New Jersey. Serious outbreaks occurred in the forests of western Massachusetts and southern Vermont 1916-19 and 1930-31; also in the White Mountain district of New Hampshire in 1917-20 and to a lesser degree in 1930-31.

Totals received: Collections, 77; larvae and pupae, 3,158; years, 14.

Larvae: June to October.

Pupae: Late July to spring.

Adults: May and June, and sometimes August and September.

Generations: Sometimes a partial second brood.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae or pupae
<b>Diptera:</b>				
<i>Compilura concinnata</i> Meig.	21	5	10	887
<i>Winthemia (?) rufopicta</i> Bigot	1	1	1	41
Tachinidae (unidentified puparia)	8	1	2	653
<b>Hymenoptera:</b>				
<i>Amblyteles sublatus</i> Cress.	22	1	4	438
<i>Enicospilus purgatus arcuatus</i> Felt	1	1	1	28
<i>Ephialtes pedalis</i> Cress.	1	1	1	55

**HETEROCAMPA BILINEATA Pack.**

Food plant: Elm.

Occurrence: One larva collected at Centerville, N.J., in July.

Pupa: August.

Adult: Late August.

**IANASSA LIGNICOLOR Walk.**

Food plants: Beech, bear oak, and red oak.

Occurrence: Collections from Belfast, Brighton, Bucksport, and Kenduskeag, Maine; New Ashford and Plymouth, Mass.; Manchester, Conn.; and New Brunswick, N.J.

Totals received: Collections, 9; larvae, 22; years, 7.

Larvae: August to October.

Pupae: Spring to summer (prepupal larva in cocoon during winter).

Adults: July to August.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Winthemia datanae</i> Town. (var. A.)	5	1	1	1
<b>Hymenoptera:</b>				
<i>Microgaster schizuriae</i> Mues.	*1	1	1	3

**SCHIZURA IPOMOAEAE Dbl.**

Food plants: Apple, cherry, boxelder, sweetfern, hawthorn, plum, willow.

Occurrence: Collections from Maine, Vermont, Massachusetts, New York, and New Jersey.

Totals received: Collections, 28; larvae, 55; years, 7.

Larvae: July to October.

Pupae: Spring to summer (prepupal larva in cocoon during winter.)

Adults: June to August.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
Tachinidae (unidentified puparia)	8	1	2	7
<i>Winthemia datanae</i> Town. (var. A.)	2	1	1	2
<b>Hymenoptera:</b>				
<i>Rogas</i> sp. (cocoon)	1	1	1	2
Unidentified (dead larva in host)	1	1	1	1

## SCHIZURA CONCINNA S. AND A.

Food plants: Apple, willow, and various other deciduous growths.

Occurrence: Collections from New England, New York, New Jersey, and Pennsylvania. Gregarious in habits and generally common.

Totals received: Collections, 623; larvae, 34,864; years, 15.

Larvae: July to October.

Pupae: Late May to June, and sometimes August to October (prepupal larva in a parchmentlike cocoon during the winter.)

Adults: Late June to late August, and sometimes August to October.

Generations: One, and occasionally a partial second.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Compsilura concinnata</i> Meig.	453	15	85	7,736
<i>Gymnophthalma americana</i> Town.	848	13	56	4,908
<i>Phorocera claripennis</i> Macq.	53	7	25	2,272
<i>Erista mella</i> Walk.	1	1	1	4
Tachinidae (unidentified puparia)	125	10	33	3,168
<i>Winthemia datanae</i> Town. (var. A.)	181	9	41	3,053
<b>Hymenoptera:</b>				
<i>Apanteles</i> sp.	1	1	1	50
<i>Aphanistes nigrorufus</i> Nort.	2	2	2	53
<i>Campoplegini</i> ( cocoons )	14	6	10	1,304
<i>Enicospilus purgatus arcuatus</i> Felt	59	9	33	3,803
<i>Eulimneria valida</i> Cress.	69	5	6	570
<i>Hyposoter clisiocampae</i> Weed	3	1	2	122
<i>Hyposoter fugitivus</i> Say	344	8	31	2,248
<i>Microgaster schizurae</i> Mues.	15	2	2	17
Miscellaneous (unidentified material)	19	4	6	435
<b>Nematoda:</b>				
Mermithidae	9	2	2	55

## SCHIZURA BADIA PACK.

Food plant: *Viburnum*.

Occurrence: Collections from Lawrence, Mass.

Totals received: Collections, 4; larvae, 188; years, 2.

Larvae: August and September.

Pupae: Spring to summer (prepupal larva in cocoon during winter.)

Adults: July and August.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Compsilura concinnata</i> Meig.	7	2	2	154
<i>Winthemia datanae</i> Town. (var. A.)	10	2	3	157
<b>Hymenoptera:</b>				
<i>Apanteles schizurae</i> Ashm.	*13	2	3	157

## SCHIZURA UNICORNIS S. AND A.

Food plants: Apple, aspen, wild black cherry, elm, rose, and willow.

Occurrence: Collections from Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, and New Jersey.

Totals received: Collections, 52; larvae, 120; years, 13.

Larvae: June to October.

Pupae: Spring, and July to August (prepupal larva in cocoon during winter.)

Adults: May to July, and July to August.

Generations: Two.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Compsilura concinnata</i> Meig.	2	2	2	6
<i>Achaetoneura piperi</i> Town.	1	1	1	2
Tachinidae (unidentified puparia)	6	2	3	3
<i>Winthemia datanae</i> Town. (var. A.)	13	4	5	26
<b>Hymenoptera:</b>				
<i>Apanteles schizurae</i> Ashm.	*3	2	2	7
<i>Comedo anomocerus</i> Cwf.	*1	1	1	6
<i>Meteorus hyphantriae</i> Riley	1	1	1	6
<i>Hyposoter</i> sp.	1	1	1	15

**SCHIZURA LEPTINOIDES GRT.**

Food plants: Beech, wild cherry, hickory, and willow.

Occurrence: Collections from Township 1, Range 5, Maine; Cheshire, Mass.; Trenton, N.Y.; and Hillsboro and Piscataway, N.J.

Totals received: Collections, 5; larvae, 7; years, 4.

Larvae: August and September.

Pupae: Cocoons formed in fall, but when pupation takes place was not observed.

Adults: June to July.

*Parasite*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Winthemia datanae</i> Town. (var. A.)	3	1	1	1

**CERURA OCCIDENTALIS LINT.**

Food plants: Aspen and willow.

Occurrence: Collections from New England States.

Totals received: Collections, 38; larvae, 57; years, 13.

Larvae: June to July, and August to October.

Pupae: July to August, and fall to spring.

Adults: Late May to June, and July to August.

Generations: Two.

*Parasite*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Compsilura concinnata</i> Meig.	1	1	1	1

**CERURA CINEREA WALK.**

Food plants: Aspen and willow.

Occurrence: Collections from Corinth and Orrington, Maine; Lynnfield, Melrose, and Worcester, Mass.; Willimantic, Conn.; and Albion, N.Y.

Totals received: Collections, 7; larvae, 8; years, 5.

Larvae: August and September.

Pupae: Fall to early summer.

Adults: June and July.

*Parasite*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Zenillia</i> n. sp.	5	1	1	1

**CERURA SP.**

Food plants: Aspen and willow.

Occurrence: Collections from Manchester, Conn.; and Mendham and Warren, N.J.

Totals received: Collections, 3; larvae, 3; years, 3.

Larvae: July and August.

Adults not reared.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Hymenoptera:				
<i>Apanteles cerurae</i> Mues.	*2	2	2	2
<i>Comedo</i> sp.	*1	1	1	1

**FENTONIA MARTHESIA CRAM.**

Food plants: Aspen, beech, maple, oak, and sycamore.

Occurrence: Collections from Belfast, Hampden, and Kenduskeag, Maine; Leicester, Vt.; Athol, Forest Hills, Melrose, Newburyport, and Saugus, Mass.; Bound Brook, N.J.; and Philadelphia, Pa.

Totals received: Collections, 12; larvae, 17; years, 7.

Larvae: July to October.

Pupae: Fall to early summer.

Adults: June to July.

*Parasite*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Compsilura concinnata</i> Meig.	2	1	1	2

**GLUPHISIA SEPTENTRIONALIS WALK.**

Food plant: Aspen.

Occurrence: Collections from Maine, Vermont, Massachusetts, and Connecticut.

Totals received: Collections, 22; larvae, 86; years, 6.

Larvae: June to July, and August to September.

Pupae: Fall to spring, and July and August.

Adults: May and June, also July and August.

Generations: Two.

*Parasite*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera: <i>Zenillia virilis</i> A. and W.	7	2	6	37

**FAMILY THYATIRIDAE***PSEUDOTHYATIRA CYMATOPHOROIDES* GUEN.

Food plants: Apple, cherry, hawthorn, and wild pear.

Occurrence: Collections from Guilford, Hampden, and Orono, Maine.

Totals received: Collections, 4; larvae, 7; years, 1.

Larvae: August to October.

Pupae: Fall to spring.

Adults: Late May and June.

*Parasite*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera: Tachinidae (unidentified puparium)	1	1	1	1

**FAMILY LIPARIDAE***NOTOLOPHUS ANTIQUA* L.

Food plants: Apple and various other deciduous trees and shrubs.

Occurrence: Collections from Maine, New Hampshire, Vermont, Massachusetts, New York, and Pennsylvania. Usually received in small numbers, though occasionally common on apple in northern New York.

Totals received: Collections, 128; larvae, 713; years, 14.

Larvae: May to October.

Pupae: June to October.

Adults: Late June to October.

Generations: Probably double brooded; at least a partial second.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Compsilura concinnata</i> Meig.	28	7	8	178
<i>Exorista mella</i> Walk.	21	3	4	123
Tachinidae (unidentified puparia)	2	2	2	77
<i>Zenillia amplera</i> Coq.	8	4	5	57
<i>Zenillia blanda</i> O. S.	2	1	1	103
<i>Zenillia</i> n. sp.	1	1	1	1
Hymenoptera:				
<i>Ephialtes (Itoplectis) conquisitor</i> Say	1	1	1	2
<i>Ilyposoter pallipes</i> Prov.	1	1	1	2
<i>Meteorus hyphantriae</i> Riley	2	2	2	15
<i>Meteorus versicolor</i> Wesm.	1	1	1	1

## HEMEROCAMPA LEUCOSTIGMA S. AND A.

Food plants: Deciduous trees and shrubs.

Occurrence: Collections from New England, New York, New Jersey, and Pennsylvania. Largely a shade-tree pest, particularly in cities. Local outbreaks have occurred in 1 or more years during the period from 1915 to 1929, inclusive, in the following cities: Everett, Somerville, and Revere, Mass.; Westerly, R.I.; Brooklyn, N.Y.; Camden, Elizabeth, Hackensack, Newark, and Trenton, N.J.; and Philadelphia, Pa.

Totals received: Collections, 371; larvae and pupae, 30,151; years, 14.

Larvae: May to September.

Pupae: June to October.

Adults: Late June to October.

Generations: Massachusetts and south—two broods, though probably only a partial second in some localities.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae or pupae
<b>Diptera:</b>				
<i>Achaetoneura aletiae</i> Riley	194	7	24	9,149
<i>Achaetoneura frenchii</i> Will	3	2	2	119
<i>Achaetoneura</i> sp.	10	1	1	72
<i>Blepharipeza</i> sp.	1	1	1	59
<i>Compsilura concinnata</i> Meig	688	14	74	10,871
<i>Phorocera claripennis</i> Macq	182	8	38	14,477
<i>Phorocera leucaniae</i> Coq	27	4	8	3,324
<i>Exorista mella</i> Walk	1,280	11	81	14,866
Tachinidae (unidentified puparia)	35	7	12	3,262
<i>Winthemia datanae</i> Town. (var. C)	13	3	5	5,540
<i>Zenillia amplexa</i> Coq	211	12	49	13,001
<i>Zenillia</i> n. sp.	15	4	5	422
<b>Hymenoptera:</b>				
<i>Amblyteles unifasciatorius</i> Say	1	1	1	3
<i>Apanteles delicatus</i> How	49	4	9	3,063
<i>Apanteles melanoscelus</i> Ratz	39	6	10	3,154
<i>Apanteles phobetri</i> Roh	*2	2	2	275
<i>Apanteles</i> sp. (cocoons)	4	2	2	839
<i>Brachymeria ovata</i> Say	35	1	3	1,650
<i>Casinaria orgyiæ</i> How	16	3	4	1,010
<i>Campoplegini</i> (cocoons)	6	3	6	349
<i>Dibrachys hemerocampae</i> Gir	74	1	4	1,800
<i>Ephialtes (Itoplectis) conquisitor</i> Say	40	4	8	2,787
<i>Ephialtes pedalis</i> Cress	1	1	1	15
<i>Epiurus nigrifrons</i> Vier	30	1	3	1,300
<i>Eulimneria valida</i> Cress	1	1	1	440
<i>Hyposoter clisiocampae</i> Weed	9	1	2	540
<i>Hyposoter pallipes</i> Prov	3	2	2	296
<i>Hyposoter</i> sp. (cocoons)	5	2	2	140
<i>Iseropus coelebs</i> Walsh	137	6	13	5,134
<i>Labryrhus analis</i> Say	1	1	1	3
<i>Meteorus hyphantriae</i> Riley	33	9	20	2,813
<i>Meteorus</i> sp. (cocoons)	12	4	6	889
<i>Psychophagus omnivorus</i> Walk	23	2	4	1,704

## HEMEROCAMPA DEFINITA PACK.

Food plants: Apple, cherry, and willow.

Occurrence: Collections from Maine, New Hampshire, Massachusetts, and New York.

Totals received: Collections, 12; larvae, 20; years, 6.

Larvae: May to September.

Pupae: July to early October.

Adults: July to October.

Generations: Probably a partial second brood in some localities.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Hymenoptera:</b>				
<i>Comedo</i> sp.	16	1	1	4
<i>Elachertus hyphantriae</i> Cwf.	9	1	1	1
<i>Iseropus coelebs</i> Walsh	7	1	1	1

**OLENE ATOMARIA WALK.**

Food plants: Oaks.

Occurrence: Collections from New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, and New York.

Totals received: Collections, 60; larvae, 112; years, 14.

Larvae: Fall to late July.

Pupae: June to August.

Adults: Middle of July to early September.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Zenillia</i> n. sp.	18	2	5	16
<b>Hymenoptera:</b>				
<i>Apanteles fiskei</i> Vier.	*4	4	4	63
<i>Hyposoter parorgyiae</i> Vier.	1	1	1	35
<i>Hyposoter rubiginosus</i> Cush.	3	3	3	60

**OLENE BASIFLAVA PACK.**

Food plants: Oaks and apple.

Occurrence: Collections from Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, and New York.

Totals received: Collections, 37; larvae, 1,021; years, 10.

Larvae: Early September to middle of July (gregarious until spring).

Pupae: June to August.

Adults: Late June to early September.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Compsilura concinnata</i> Meig.	10	3	4	35
<i>Exorista mellla</i> Walk.	3	1	2	6
<b>Hymenoptera:</b>				
<i>Apanteles fiskei</i> Vier.	*10	1	3	10
<i>Casinaria orgyiae</i> How.	1	1	1	50
<i>Hyposoter rubiginosus</i> Cush.	5	2	2	260
<i>Meteorus</i> sp. (cocoon)	1	1	1	1

## OLENE PINI DYAR

Food plants: Pine (white and pitch).

Occurrence: Collections from Billerica, Boxford, Dover, Hanover, Lunenburg, Natick, Saugus, and Wilmington, Mass.; and Epping, Exeter, and Haverhill, N.H.

Totals received: Collections, 11; Larvae, 12; years, 7.

Larvae: Fall to July.

Pupae: July and August.

Adults: July and August.

## Parasite

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera: <i>Zenillia</i> n. sp.		1	1	1

## UNIDENTIFIED SPECIES OF OLENE

Food plant: Oak.

Occurrence: Collections from Winchendon, Mass.; and Warren, N.J.

Totals received: Collections, 2; larvae, 6; years, 2.

Larvae: Fall to late June.

Pupae: June and July.

Adults: July.

## Parasite

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera: <i>Compsilura concinnata</i> Meig.		1	1	1

## FAMILY EUPTEROTIDAE

## APATELODES TORREFACTA S. AND A.

Food plants: Speckled alder, blackberry, wild black cherry, and maple.

Occurrence: Collections from Massachusetts, Connecticut, New York, New Jersey, and Pennsylvania.

Totals received: Collections, 14; larvae, 29; years, 6.

Larvae: July to September.

Pupae: August to June.

Adults: June and July.

## Parasite

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Hymenoptera: <i>Ophionini</i> (cocoon)		1	1	1

## APATELODES ANGELICA Grt.

Food plant: Ash.

Occurrence: Collections from Elmira, N.Y.; and Branchburg, N.J.

Totals received: Collections, 2; larvae, 3; years, 2.

Larvae: August and September.

Pupae: Fall to July.

Adults: July.

## FAMILY LASIOCAMPIDAE

## TOLYPE VELLEDA STOLL

Food plants: Apple, ash, aspen, basswood, cherry, elm, maple, and oak.

Occurrence: Collections from New Hampshire, Massachusetts, Connecticut, New York, and New Jersey.

Totals received: Collections, 21; larvae, 25; years, 10.

Larvae: June to August.

Pupae: August to September.

Adults: September and October.

## MALACOSOMA AMERICANA FAB.

Food plants: Apple, cherry, and other fruits.

Occurrence: Collections from New England, New York, New Jersey, and Pennsylvania. Generally common. Outbreaks reported almost every year.

Totals received: Collections, 364; larvae and pupae, 60,031; years, 15.

Larvae: April to late June.

Pupae: June and July.

Adults: Late June and July.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae or pupae
Diptera:				
<i>Achaetoneura archippivora</i> Will	15	4	5	5,831
<i>Achaetoneura frenchii</i> Will	268	14	44	14,936
<i>Achaetoneura samiae</i> Webber	13	3	4	230
<i>Blepharipeza exul</i> Town	550	15	106	32,343
<i>Cartocometes io</i> Ald.	1	1	1	1,000
<i>Compsilura concinnata</i> Meig	49	8	15	917
<i>Phorocera claripennis</i> Macq	28	7	11	10,293
<i>Ernestia ampelus</i> Walk	5	3	5	4,140
<i>Erorista mellula</i> Walk	24	7	13	7,055
<i>Zenillia futilis</i> O. S	8	5	5	1,967
<i>Zenillia protuberans</i> A. and W	846	13	74	19,136
Hymenoptera:				
<i>Apanteles clisiocampae</i> Ashm	43	3	4	875
<i>Ephialtes (Itoplectis) conquistor</i> Say	39	7	8	1,270
<i>Ephialtes pedalis</i> Cress	6	2	3	103
<i>Eremotylus</i> n. sp.	2	2	2	124
<i>Eulimneria valida</i> Cress	1	1	1	1,489
<i>Glypta simplicipes</i> Cress	2	2	2	999
<i>Glypta</i> sp.	1	1	1	518
<i>Hyposoter clisiocampae</i> Weed	85	5	11	9,331
<i>Hyposoter fugitivus</i> Say	57	7	13	10,812
<i>Labryrchus analis</i> Say	172	13	54	12,073
<i>Meteorus communis</i> Cress	5	2	2	589
<i>Meteorus hyphantriae</i> Riley	44	6	12	3,667
<i>Rogas</i> sp.	16	2	2	1,660
Nematoda:				
<i>Mermithidae</i>	101	4	5	3,132

## MALACOSOMA DISSTRIA HBN.

Food plants: Oak, maple, and other deciduous trees.

Occurrence: Collections from New England, New York, and New Jersey. Usually quite common in oak woodlands, sometimes defoliating large areas. Outbreaks occurred in Massachusetts 1912-14. It was estimated at least 1,000 acres of woodland were defoliated in 1912 in towns of Mashpee and Sandwich, Mass.

Totals received: Collections, 239; larvae, 18,390; years, 15.

Larvae: May to July.

Pupae: Early June to early August.

Adults: Middle of June to early August.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Achaetoneura frenchii</i> Will	311	12	44	8,712
<i>Blepharipera exul</i> Town	224	11	62	10,157
<i>Cartocometes io</i> Ald	203	9	28	8,225
<i>Compsilura concinnata</i> Meig	168	13	43	5,291
<i>Ernestia ampelus</i> Walk	2	2	2	803
<i>Madremyia saundersii</i> Will	3	1	1	3
<i>Phorocera claripennis</i> Macq	2	1	1	345
<i>Phorocera pachypyga</i> A. and W	27	5	6	1,961
<i>Sturmia scutellata</i> Desv	5	3	3	220
<i>Exorista mellae</i> Walk	38	9	22	2,231
<i>Tachinomyia</i> sp	14	3	8	2,896
Tachinidae (unidentified puparia)	162	10	35	8,375
<i>Zenillia futilis</i> O.S.	3	2	3	607
<i>Zenillia protuberans</i> A. and W	2,135	15	113	14,191
Hymenoptera:				
<i>Ephialtes (Itoplectis) conquisitor</i> Say	2	1	1	345
<i>Eremotylus</i> n.sp.	57	4	6	761
<i>Hyposoter clisiocampae</i> Weed	44	5	8	3,341
<i>Labryrychus analis</i> Say	68	9	23	2,092
<i>Meteorus datanae</i> Mues	1	1	1	400
<i>Meteorus hyphantriae</i> Riley	8	2	3	1,648
<i>Meteorus</i> sp. (cocoons)	2	1	1	245
<i>Campoplegidea (Viereckiana) vitticollis</i> Nort	1	1	1	130

## EPICNAPTERA AMERICANA HARR.

Food plants: Aspen, wild cherry, hickory, and oaks.

Occurrence: Collections from New England and New Jersey.

Totals received: Collections, 40; larvae, 47; years, 12.

Larvae: May to August.

Pupae: Late June and July, also fall to spring.

Adults: May and June, sometimes July.

Generations: One, and sometimes a second brood.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Compsilura concinnata</i> Meig	8	4	4	4
<i>Exorista mellae</i> Walk	4	2	2	2
Tachinidae (unidentified puparia)	6	3	3	3
Hymenoptera:				
<i>Apanteles</i> n.sp.	*1	1	1	1
<i>Chromocryptus nebraskensis</i> Ashm	*3	3	3	3

## FAMILY GEOMETRIDAE

## BREPHOS INFANS MÖSCH.

Food plant: Gray birch.

Occurrence: Collections from Burnham, Maine; Keene, N.H.; and Lunenburg, Lynnfield, Marlboro, Melrose, and Saugus, Mass.

Totals received: Collections, 10; larvae, 36; years, 6.

Larvae: May to July.

Pupae: July to spring.

Adults: April and May.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Ictericophyto spinosa</i> Coq.	5	2	3	30
<i>Thryptocera flavipes</i> Coq.	2	1	1	1
Hymenoptera:				
<i>Hyposoter</i> sp. (cocoon producing hyperparasite)	1	1	1	1

## ALSOPHILA POMETARIA HARR.

Food plants: Apple, elm, maple, and other deciduous growths.

Occurrence: Collections from New England and New Jersey. Local outbreaks have been reported from Hampton, N.H., in 1920; Mendham, N.J., 1921-24; Somerville, N.J., 1923-26; Morristown, N.J., 1924-25; Southbury, Conn., 1925; Kennebunk, Maine, 1926; Colchester, Vt., 1926-27; and Westerly, R.I., in 1929. Sometimes woodlands are defoliated as well as orchard and shade trees.

Totals received: Collections, 84; larvae, 13,013; years, 14.

Larvae: May to July.

Pupae: June to December and sometimes later.

Adults: November to December, sometimes early spring.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Ictericophyto spinosa</i> Coq.	72	7	16	5,820
<i>Gonia sagax</i> Town.	10	3	3	1,325
<i>Anetia eupitiae</i> Town.	98	6	10	7,620
<i>Pseudotachinomyia webberi</i> Smith.	12	3	4	2,467
<i>Tachinomyia</i> sp.	304	9	20	7,426
Tachinidae (unidentified puparia)	29	7	13	4,037
<i>Winthemia fumiferanae</i> Tot.	14	5	6	3,058
<i>Winthemia rufopicta</i> Bigot.	1	1	1	600
<i>Zenillia vulgaris</i> Fall.	1	1	1	600
Hymenoptera				
<i>Apanteles memoriae</i> Ashm.	1	1	1	16
<i>Apanteles paleacritae</i> Riley.	7	2	4	529
<i>Apanteles</i> sp. (cocoon).	1	1	1	50
<i>Campoplegini</i> (cocoon).	1	1	1	441
<i>Hyposoter clisiocampae</i> Weed.	1	1	1	105
<i>Meteorus</i> n. sp.	2	2	2	1,390
<i>Rogas</i> sp.	6	1	1	44

## SYNCHLORA RUBRIFRONTARIA Pack.

Food plant: Sweetfern.

Occurrence: Collections from Bangor, Ellsworth, Hampden, Kenduskeag, Orono, Orrington, Veazie, and Winterport, Maine; and Putnam, Conn.

Totals received: Collections, 14; larvae, 47; years, 4.

Larvae: July to September.

Pupae: Fall to June.

Adults: June.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Zenillia vulgaris</i> Fall-----	1	1	1	10
Hymenoptera:				
<i>Campoplegidea variabilis</i> Frnkl-----	1	1	1	2

## SYNCHLORA AERATA Fab.

Food plants: Apple, willow, and yarrow.

Occurrence: Collections from Lynnfield, Wakefield, Melrose, and Norfolk, Mass.; and Port Henry, N.Y.

Totals received: Collections, 6; larvae, 15; years, 3.

Larvae: July to September.

Pupae: August and September to June.

Adults: Late May to June, and August.

## COSYMBIA LUMENARIA HBN.

Food plant: Sweetfern.

Occurrence: Collections from Old Town, and Orono, Maine; and Dover and Melrose, Mass.

Totals received: Collections, 5; larvae, 26; years, 3.

Larvae: June to July, and September to October.

Pupae: July to August, and October to May.

Adults: May and June, and July and August.

*Parasite*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Thryptocera flavipes</i> Coq-----	1	1	1	3

## TRICHODESIA ALBOVITTATA Guen.

Food plant: Virginia creeper.

Occurrence: One larva collected at Melrose, Mass., in September.

Pupa: October to May.

Adult: Late May.

## CALOCALPE UNDULATA L.

Food plant: Wild black cherry.

Occurrence: Collections from New England, New York, New Jersey, and Pennsylvania. Sometimes very common. Larvae gregarious in leaves webbed together on terminals.

Totals received: Collections, 116; larvae, 6,635; years, 12.

Larvae: June to October.

Pupae: Late summer to next summer.

Adults: May to September.

Generations: One (issuance continues over a long period.).

### Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Compsilura concinnata</i> Meig.	14	2	3	232
<i>Zenillia blanda</i> O.S.	9	4	7	553
Hymenoptera:				
<i>Apanteles hydriae</i> Mues.	*350	11	60	3,519
<i>Apanteles paleacritae</i> Riley.	1	1	1	25
<i>Campoplegini</i> (cocoons)	6	3	3	204
<i>Eulimneria valida</i> Cress.	77	7	19	1,551
<i>Labryrychus</i> sp.	1	1	1	7

### LYGRIS DIVERSILINEATA HBN.

Food plants: Grape and Virginia creeper.

Occurrence: Collections from Gorham, Maine; Brockton, Somerville, and Wakefield, Mass.; and Putnam, Conn.

Totals received: Collections, 6; larvae, 44; years, 5.

Larvae: May to August.

Pupae: July to September.

Adults: July to September.

### XANTHORHOE LACISTRATA GUEN.

Food plant: Horseradish.

Occurrence: One larva collected at Beverly, Mass., in September.

Pupa: October to June.

Adult: June.

### XANTHORHOE DESIGNATA HUF.

Food plant: Horseradish.

Occurrence: Collections from Beverly, Mass.

Totals received: Collections, 2; larvae, 3; years, 2.

Larvae: Late June to July, and August to September.

Pupae: Late July to August, and October to June.

Adults: June and August.

### EULYPE HASTATA L.

Food plants: Birch, sweetfern, and willow.

Occurrence: Collections from Bangor, Glenburn, Hampden, Hermon, Orrington, and Veazie, Maine; and Burlington, Mass.

Totals received: Collections, 8; larvae, 31; years, 1.

Larvae: July to September.

Pupae: Fall to spring.

Adults: Late May and June.

### Parasite

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
Tachinidae (unidentified puparium)	1	1	1	1

## EUFIDONIA NOTATARIA WALK.

Food plant: Larva found on maple (others list white pine).

Occurrence: One larva collected at Bangor, Maine.

Larva: August to September.

Pupa: September to May.

Adult: Late May.

## BAPTA SEMICLARATA WALK.

Food plant: Wild cherry.

Occurrence: Collections from Dalton and Hinsdale, Mass.

Totals received: Collections, 2; larvae, 13; years, 1.

Larvae: June and July.

Pupae: August to spring.

Adults: May to June.

## Parasite

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Hymenoptera: <i>Campoplegidea</i> sp.	2	1	1	7

## BAPTA VESTALIATA GUEN.

Food plant: Birch.

Occurrence: One larva collected at Kenduskeag, Maine.

Larva: July to August.

Pupa: August to May.

Adult: Late May.

## PHYSOSTEGANIA PUSTULARIA GUEN.

Food plant: Maple.

Occurrence: Collections from Mason, N.H.; and Bedford, Lunenburg, and Stow, Mass. A local outbreak occurred at Lunenburg, Mass., in 1915 and 1916. Red maple trees were reported as 50 percent defoliated.

Totals received: Collections, 5; larvae, 475; years, 2.

Larvae: May and June.

Pupae: June and July.

Adults: Late June to July.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera: <i>Tachinidae</i> (unidentified puparium)	1	1	1	200
Hymenoptera: <i>Campoplegini</i> (cocoon)	1	1	1	100
<i>Casinaria</i> , sp. near <i>eupitheciae</i> Vier	8	1	1	200

## CABERA ERYTHREMARIA GUEN.

Food plants: Aspen and willow.

Occurrence: Collections from Castine, Greenville, Kingsbury, Mayfield, Parlin Pond, Sandy Bay, Shirley, Wallagrass, and West Forks, Maine.

Totals received: Collections, 9; larvae, 30; years, 2.

Larvae: August and September.

Pupae: Fall to early summer.

Adults: June and July.

*Parasite*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera: Tachinidae (unidentified puparium)-----	1	1	1	4

**MACARIA SP. POSSIBLY VARIETY OF GRANITATA GUEN.**

Food plant: Unknown (found beneath larch trees).

Occurrence: Collections of pupae from Ashburnham and Lunenburg, Mass.

Totals received: Collections, 2; pupae, 3; years, 2.

Pupae: Late summer to June.

Adults: June.

*ITAME RIBEARIA FITCH*

Food plants: Currant and gooseberry.

Occurrence: Collections from Bangor and Corinth, Maine; Boscawen, Claremont, and Croydon, N.H.; and Ware, Mass.

Totals received: Collections, 7; larvae, 269; years, 5.

Larvae: Late May to July.

Pupae: June and July.

Adults: July.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera: <i>Compsilura concinnata</i> Meig-----	2	1	1	39
Hymenoptera: <i>Meteorus hyphantriae</i> Riley-----	4	1	1	185

**CARIPETA ANGUSTIORATA WALK.**

Food plant: Unknown (found beneath white pine).

Occurrence: One pupa collected at Middleboro, Mass., in May.

Adult: July.

*PARAPHIA UNIPUNCTA HAW.*

Food plant: Not recorded.

Occurrence: One collection of two larvae from Lunenburg, Mass., in May.

Pupae: May and June.

Adult: June.

*VITRINELLA PAMPINARIA GUEN.*

Food plant: Carrot.

Occurrence: One larva collected at Arlington, Mass.

Larva: August and September.

Pupa: Late September to June.

Adult: June.

*ANACAMPTODES VELLIVOLATA HULST.*

Food plant: Unknown (found beneath larch trees).

Occurrence: One collection of two pupae from Lunenburg, Mass.

Pupae: Fall to spring.

Adult: May.

## ANACAMPTODES EPHYRARIA WALK.

Food plant: Hemlock.

Occurrence: In summer of 1918 the full-grown larvae were reported as quite abundant in one locality at Beverly, Mass.

Totals received: Collections, 1; larvae, 30; years, 1.

Larvae: June and July.

Pupae: July and August.

Adults: August.

## Parasite

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera: <i>Zenillia virilis</i> A. and W.		1	1	30

## ANACAMPTODES LARVARIA GUEN.

Food plant: Aspen.

Occurrence: Collections from Fort Kent, Kingsbury, Moose River, Parlin Pond, and West Forks, Maine.

Totals received: Collections, 7; larvae, 11; year, 1.

Larvae: August to early October.

Pupae: September to June.

Adults: June.

## MELANOLOPHIA CANADARIA GUEN.

Food plant: Wild black cherry.

Occurrence: Collections from Dalton, Hinsdale, and Washington, Mass.

Totals received: Collections, 3; larvae, 17; years, 1.

Larvae: June to August.

Pupae: Late July to spring.

Adults: May and June.

## ECTROPIS CREPUSCULARIA D. AND S.

Food plants: Maple, oak, and spiraea.

Occurrence: Collections from Orono, Maine; Brooklyn, N.Y.; and Somerville, N.J.

Totals received: Collections, 3; larvae, 3; years, 3.

Larvae: May to September.

Pupae: June to July, and September to October.

Adults: June, July, and October.

## LYCIA URSARIA WALK.

Food plants: Apple, aspen, blueberry, wild cherry, maple, and willow.

Occurrence: Collections from Maine, New Hampshire, Vermont, Massachusetts, and Connecticut. This species appeared common only in 1923 when 13 collections were received from widely separated localities.

Totals received: Collections, 20; larvae, 54; years, 5.

Larvae: May to July.

Pupae: July to April.

Adults: April and May.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Ceromasia</i> sp.	8	1	1	1
Hymenoptera:				
Ichneumonidae (dead larva)	1	1	1	1

## AMPHIDASIS COGNATARIA GUEN.

Food plants: Sweetfern, willow, and various other deciduous growths.

Occurrence: Collections from Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania. Generally common.

Totals received: Collections, 185; larvae, 345; years, 12.

Larvae: July to October.

Pupae: Fall to spring and summer.

Adults: May to July.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Compsilura concinnata</i> Meig	2	2	2	16
<i>Zenillia helvina</i> Coq	329	11	59	175
Hymenoptera:				
<i>Apanteles lyciae</i> Mues	*11	4	9	31
<i>Apanteles murtfeldtae</i> Ashm	*1	1	1	1
<i>Apanteles</i> sp.	*3	3	3	16

## NACOPHORA QUERNARIA S. AND A.

Food plant: Oak.

Occurrence: Collections from Cheshire, Mass.; and Westerly, R.I.

Totals received: Collections, 2; larvae, 2; years, 2.

Larvae: July to September.

Pupae: Fall to spring.

Adults: June and July (collected specimens).

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
Tachinidae (unidentified maggot)	1	1	1	1
<i>Zenillia helvina</i> Coq	4	1	1	1

## POECILOPSIS RACHELAE HULST.

Food plant: Gray birch and hazelnut.

Occurrence: Collections from Beverly, Chelmsford, and Melrose, Mass.

Totals received: Collections, 5; larvae, 6; years, 4.

Larvae: May and June.

Pupae: Late June to spring.

Adults: April.

## PHIGALIA TITEA CRAM.

Food plants: Various deciduous growths.

Occurrence: Collections from New Hampshire, Vermont, Massachusetts, New York, and New Jersey. Often common in oak woodlands. A few red oak trees were defoliated in a local outbreak at Armonk, N.Y., in 1923.

Totals received: Collections, 76; larvae, 1,479; years, 15.

Larvae: May to July.

Pupae: July to April.

Adults: April.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Compsilura concinnata</i> Meig.	9	5	5	285
<i>Ceromasia</i> sp.	76	5	9	734
Tachinidae (unidentified puparia)	15	4	7	458
<i>Tachinomyia</i> sp.	3	2	2	251
<i>Winthemia fumiferanae</i> Tot.	2	2	2	2
<i>Zenillia virilis</i> A. and W.	7	1	1	151
<b>Hymenoptera:</b>				
<i>Apanteles phigaliae</i> Mues.	*36	4	7	811
<i>Apanteles murtfeldiae</i> Ashm.	*1	1	1	1
<i>Aphanistes</i> sp.	1	1	1	24
<i>Campoplegidea (Viereckiana) vitticollis</i> Nort.	5	3	3	433
<i>Campoplegini</i> (cocoon)	2	1	1	21
<i>Hyposoter flavipes</i> Prov.	3	2	2	34
<i>Meteorus hyphantriae</i> Riley	1	1	1	250
<i>Microgaster</i> sp.	1	1	1	1
<i>Rogas</i> sp.	1	1	1	50

## PALEACRITA VERNATA PECK.

Food plants: Apple, elm, and other deciduous growths.

Occurrence: Collections from Maine, New Hampshire, Vermont, and Massachusetts. Local outbreaks were reported at Portland, Maine, 1918-19; Quincy, Mass., 1918; Salisbury, N.H., 1920; and Williamstown, Vt., in 1927.

Totals received: Collections, 10; larvae, 284; years, 7.

Larvae: May and June.

Pupae: July to March.

Adults: March and April.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Hymenoptera:</b>				
<i>Apanteles</i> sp. (cocoon)	1	1	1	51
<i>Campoplegini</i> (cocoon)	3	1	1	65

## ERANNIS TILIARIA HARR.

Food plants: Linden, maple, oak, and other deciduous growths.

Occurrence: Collections from Maine, New Hampshire, Vermont, Massachusetts, Connecticut, New York, and New Jersey. Often rather common in forests. It has been reported as abundant from 1924 to 1926 in several sections of Vermont and northern New York. Reports in 1925 indicated that there were some areas from 75 to 100 percent defoliated at Cranberry Lake and Chesterfield, N.Y.; and Essex, Jericho, and Woodford, Vt.

Totals received: Collections, 100; larvae, 1,553; years, 15.

Larvae: May to July.

Pupae: July to October and November.

Adults: October to December.

### Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Ictericophyto spinosa</i> Coq.	14	4	6	274
<i>Pseudotachinomyia webberi</i> Sm.	211	12	29	881
Tachinidae (unidentified puparia)	16	3	3	105
<i>Winthemia sinuata</i> Reinhard	1	1	1	140
<i>Zenillia vulgaris</i> Fall	72	8	23	1,122
Hymenoptera:				
<i>Apanteles memoriae</i> Ashm.	3	1	2	18
<i>Hyposoter flavipes</i> Prov.	2	1	1	9
Campoplegini (cocoon)	1	1	1	30

### CINGILIA CATENARIA DRU.

Food plants: Blackberry, blueberry, sweetfern, huckleberry, wild black cherry, wild-indigo, and various other deciduous growths.

Occurrence: Collections from New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, and New York. Local outbreaks occurred in Lyme, N.H., in 1919; Westerly, R.I., 1919-21; Plainfield, Conn., 1920; Brewster, Mass., 1922; Sherborn, Mass., 1922-23; Babylon, N.Y., 1925; Rome, N.Y., 1926-27; Amherst, N.H., 1926-28; Lancaster, Mass., 1928-29; Effingham, N.H., 1929; Bernardston, Deerfield, Greenfield, and Orange, Mass., 1929. The infestations seem to occur on rather low-growing shrubs and small trees in pastures and sproutlands.

Totals received: Collections, 59; larvae, 7,761; years, 11.

Larvae: June to August.

Pupae: July to October.

Adults: Middle of August to October (one record of living adults in cage in December).

### Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Ceromasia rutilia</i> Meig.	368	8	21	4,060
<i>Chaeophlepsis orbitalis</i> Webber	568	9	26	5,451
<i>Compsilura concinnata</i> Meig.	67	6	16	3,771
<i>Anetia</i> sp. (complex)	44	9	18	4,299
<i>Madremya saundersii</i> Will	7	2	2	201
<i>Phorocera claripennis</i> Macq.	1	1	1	380
Tachinidae (unidentified puparia)	50	6	13	2,946
<i>Winthemia (?) sinuata</i> Reinhard	17	4	7	1,528
<i>Zenillia blanda</i> O.S.	56	8	13	2,086
<i>Zenillia virilis</i> A. and W.	6	1	1	160
<i>Zenillia vulgaris</i> Fall	5	3	3	1,528
Hymenoptera:				
<i>Apanteles cingiliae</i> Mues.	34	1	4	410
<i>Apanteles memoriae</i> Ashm.	1	1	1	553
<i>Apanteles</i> sp. (cocoons)	3	2	2	364
<i>Casinaria</i> sp. (cocoon)	1	1	1	50
<i>Ephialtes (Itoplectis) conquisitor</i> Say	1	1	1	99
<i>Hyposoter</i> n. sp. (near <i>geometrae</i> Ashm.)	8	2	2	600
<i>Hyposoter</i> sp. (cocoons)	2	1	2	472
<i>Meteorus cingiliae</i> Mues.	68	9	17	4,192
Ophionini (cocoon)	1	1	1	286

## ELLOPIA FISCELLARIA GUEN.

Food plants: Hemlock, yellow birch, and to some extent, beech, blueberry, elm, and oak.

Occurrence: Collections from Bath, Maine; Theresa and Redwood, N.Y. It appeared in outbreak form in 1927 at Bath, Maine, defoliating and killing 100 acres of hemlock, also in 1927-28 at Theresa and Redwood, N.Y., defoliating several acres of hemlock, and causing death of many large trees.

Totals received: Collections, 8; larvae, 1,935; years, 3.

Larvae: July and August.

Pupae: Late August to early October.

Adults: September and early October.

## PARASITES

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Anetia eufitchiae</i> Town	18	2	3	589
<i>Madremyia saundersii</i> Will	3	1	3	1,704
<i>Winthemia</i> sp. (puparia)	4	1	2	1,379
Tachinidae (unidentified puparium)	1	1	1	325
<b>Hymenoptera:</b>				
<i>Apanteles</i> n. sp.	1	1	1	31
Campoplegini (cocoons)	2	1	2	704

## CAMPAEA PRAEGRANDARIA GUEN.

Food plant: Apple.

Occurrence: One larva collected at Burnham, Maine, in May.

Pupa: Late May and June.

Adult: June.

## EUGONOBAPTA NIVOSARIA GUEN.

Food plant: Meadowrue.

Occurrence: One collection of three larvae from Melrose, Mass.

Larvae: May and June.

Pupae: Late June to July.

Adults: July.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Actia</i> sp. near <i>palloris</i> Coq	3	1	1	3
<i>Compsilura concinnata</i> Meig	1	1	1	3

## ENNOMOS SUBSIGNARIUS HBN.

Food plants: Red maple, yellow birch, and other deciduous growth found in lowlands.

Occurrence: Collections from Massachusetts. Abundant in several red maple swamps in eastern Massachusetts from 1914 to 1919. The most serious outbreaks recorded were in Bedford and Middleboro, Mass., where severe defoliation over many acres occurred in 1915 and 1916 diminishing in 1917. No larvae have been received since 1920.

Totals received: Collections, 21; larvae, 2,956; years, 6.

Larvae: May and June.

Pupae: June and July.

Adults: July.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Actia</i> , near <i>palloris</i> Coq.	2	1	1	200
<i>Compsilura concinnata</i> Meig.	3	3	3	477
<i>Ernestia</i> sp.	2	1	2	1,175
<i>Madremyia saundersii</i> Will.	1	1	1	1,000
Tachinidae (unidentified puparia)	79	4	8	1,983
<i>Zenillia blanda</i> O.S.	3	2	2	1,140
<i>Zenillia futilis</i> O.S.	232	5	13	2,587
<i>Zenillia vulgaris</i> Fall	6	4	5	614
<b>Hymenoptera:</b>				
<i>Apechthis picticornis</i> Cress.	2	1	2	300
<i>Ephialtes (Itoplectis) conquistor</i> Say	97	4	7	1,181
<i>Euplectrus</i> sp.	*1	1	1	2
<i>Glypta simplicipes</i> Cress.	3	2	2	302
<i>Hyposoter flavipes</i> Prov.	1	1	1	175

**ENNOMOS MAGNARIUS GUEN.**

Food plant: White ash.

Occurrence: One collection of five larvae from Brockport, N.Y. in August.

Pupae: Late August and September.

Adults: September to October.

**XANTHOTYPE CROCATARIA FAB.**

Food plants: Hollyhock, meadowrue, nettle.

Occurrence: Collections from Bangor, Maine, and Somerville, N.J.

Totals received: Collections, 3; larvae, 6; years, 3.

Larvae: May and June.

Pupae: June.

Adults: June and July.

*Parasite*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Hymenoptera:</b>				
<i>Meteorus</i> sp. (cocoons)	6	1	1	3

**PLAGODIS SERINARIA H-S.**

Food plant: Yellow birch.

Occurrence: Collections from Monroe, Mass.; and Cranberry Lake, N.Y.

Totals received: Collections, 2; larvae, 2; years, 2.

Larvae: July to September.

Pupae: Late August to June.

Adults: May and June.

**HYPERITIS AMICARIA H-S.**

Food plant: Yellow birch.

Occurrence: Collections from Cranberry Lake, N.Y.

Totals received: Collections, 2; larvae, 3; years, 2.

Larvae: July to early September.

Pupae: Fall to June.

Adults: May and June.

## NEMATOCAMPA LIMBATA HAW.

Food plants: Apple, gray birch, and various other deciduous growths.

Occurrence: Collections from New Hampshire, Massachusetts, Rhode Island, and New Jersey.

Totals received: Collections, 26; larvae, 46; years, 11.

Larvae: May to July.

Pupae: Late June and July.

Adults: Late June and July.

## Parasite

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
Tachinidae (unidentified puparium)-----	1	1	1	3

## AZELINA ANCETARIA HBN.

Food plant: Goldenrod.

Occurrence: One larva collected at Melrose, Mass., in July.

Pupa: Late July to early August.

Adult: August.

## SABULODES LORATA GR. T.

Food plant: Wild black cherry.

Occurrence: One collection of two larvae from Revere, Mass., in August.

Pupae: September to June.

Adults: June.

## SABULODES TRANSVERSATA DRU.

Food plants: Maple, mulberry, sweetfern, and wild black cherry.

Occurrence: Collections from Maine, New Hampshire, and Massachusetts.

Totals received: Collections, 16; larvae, 38; years, 6.

Larvae: June to September.

Pupae: July and August, fall to spring.

Adults: May and June, and August.

Generations: Two.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
Tachinidae (unidentified puparia)-----	2	1	1	1
Hymenoptera:				
Apanteles murtfeldiae Ashm.-----	*2	1	2	2

## ABBOTTANA CLEMENTARIA S. AND A.

Food plants: Aspen, wild black cherry, maple.

Occurrence: Collections from Barre, Vt.; Middleboro, Mass.; and Manchester, Conn.

Totals received: Collections, 3; larvae, 3; years, 3.

Larvae: June and July.

Pupae: Late July to May.

Adults: May.

## MISCELLANEOUS UNIDENTIFIED SPECIES OF GEOMETRIDAE

Food plants: Various deciduous growths.

Occurrence: Collections from Maine, New Hampshire, Vermont, Massachusetts, New York, and New Jersey.

Totals received: Collections, 15; larvae, 46; years, 9.

Larvae: May to September.

Adults: None.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Achaetoneura frenchii</i> Will.	2	1	1	1
Tachinidae (unidentified puparia)	10	4	4	27
<i>Winthemia</i> (?) <i>sinuata</i> Reinhard	4	2	2	3
<i>Zenillia helvina</i> Coq.	5	2	2	2
Hymenoptera:				
<i>Apanteles murtfeldtae</i> Ashm.	*2	2	2	2
<i>Apanteles</i> n.sp.	*1	1	1	2
<i>Apanteles</i> sp. (cocoons)	*1	1	1	1
<i>Casinaria</i> n.sp.	1	1	1	7

## FAMILY LACOSOMIDAE

## CICINNUS MELSHEIMERI HARR.

Food plants: Bear oak.

Occurrence: One collection of eight larvae from Manchester, Conn., in September.

Pupae and adults: Not reared.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Chrysotachina alcedo</i> Loew	7	1	1	8
Hymenoptera:				
<i>Apanteles</i> sp. (cocoons)	3	1	1	8

## FAMILY PSYCHIDAE

## THYRIDOPTERYX EPHEMERAIFORMIS HAW.

Food plants: Various shade and ornamental trees and shrubs.

Occurrence: Collections from New York, New Jersey, Pennsylvania. Often reported as defoliating shade and ornamental trees in New Jersey and Pennsylvania. Apparently it does not survive in New England.

Totals received: Collections, 26; larvae and pupae, 2,325; years, 8.

Larvae: June to September.

Pupae: August to September.

Adults: September and October.

*Parasites*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae or pupae
<b>Diptera:</b>				
<i>Anachaetopsis tortricis</i> Coq.	2	2	2	367
<i>Phorocera claripennis</i> Macq.	10	4	6	962
<i>Zenillia blanda</i> O.S.	1	1	1	191
<b>Hymenoptera:</b>				
<i>Allocota thyridopterigis</i> Riley	1	1	1	110
<i>Ephialtes (Itoplectis) conquistor</i> Say	74	4	7	682

**EURYCYTTARUS CONFEDERATA GRT.**

Food plants: Grasses.

Occurrence: Collections from Woodbury, Conn.; and Bound Brook, Plainfield, and Somerville, N.J.

Totals received: Collections, 4; larvae, 45; years, 3.

Larvae: May and June.

Pupae: June and July.

Adults: June and July.

*Parasite*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae or pupae
<b>Hymenoptera:</b>				
<i>Ephialtes aequalis</i> Prov.	2	1	2	37

**FAMILY EUCLEIDAE****SIBINE STIMULEA CLEM.**

Food plants: Basswood, wild black cherry, corn, ginko, oak, spicebush.

Occurrence: Collections from Rhode Island, New York, and New Jersey.

Apparently it does not survive in northern New England.

Totals received: Collections, 12; larvae, 33; years, 8.

Larvae: August to October.

Pupae: Spring (hibernates as prepupal larva in cocoon).

Adults: June and July.

*Parasite*

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
<b>Diptera:</b>				
<i>Tachinidae (unidentified puparia)</i>	4	1	1	9

## PARASA INDETERMINA BdV.

Food plant: Bayberry.

Occurrence: Collections from Westerly, R.I., and Old Bridge, N.J.

Totals received: Collections, 2; larvae, 102; years, 2.

Larvae: August and September.

Adults: Not reared.

## EUCLEA DELPHINII BdV.

Food plant: Apple.

Occurrence: Collections from North Adams, Mass., and Martinsville, N.J.

Totals received: Collections, 2; larvae, 4; years, 2.

Larvae: August and September.

Pupae: Pupation probably takes place in the spring, though cocoons are spun in the fall.

Adults: July.

## PROLIMACODES SCAPHA HARR.

Food plants: Wild black cherry, tupelo.

Occurrence: Collections from Melrose, Mass.; and Parlin, N.J.

Totals received: Collections, 2; larvae, 2; years, 2.

Larvae: August and September (one larva inflated for Melrose Highlands laboratory).

Pupae and adults not reared.

## SISYROSEA TEXTULA H-S.

Food plants: Norway maple and black oak.

Occurrence: Collections from Melrose and Saugus, Mass.

Totals received: Collections, 2; larvae, 9; years, 2.

Larvae: August to early October.

Pupae: Dates unknown (cocoon from fall to summer, probably hibernating as a prepupa until spring).

Adults: Late June and July.

## PHOBETRON PITHECIUM S. AND A.

Food plants: Apple, aspen, cherry, oak, serviceberry, walnut.

Occurrence: Collections from Massachusetts, Rhode Island, Connecticut, New York, and New Jersey.

Totals received: Collections, 15; larvae, 27; years, 9.

Larvae: August to September.

Pupae: May or June to July (hibernates as prepupal larva in cocoon).

Adults: June and July.

## Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Phorocera longiuscula</i> Walk.	1	1	1	2
Tachinidae (unidentified puparia)	2	2	2	9

## CNIDOCAMPA FLAVESCENS WALK.

Food plants: Norway and sycamore maple, apple, buckthorn, pear, and various other deciduous growths.

Occurrence: Introduced probably on nursery stock from Japan. Infestations are confined to the metropolitan area of Boston, Mass. The most serious infestations are, for the most part, found in back yards and vacant lots in residential sections. Each year some fruit and shade trees are defoliated.

Totals received: Collections, 84; larvae, 11,277; years, 11.

Larvae: Late July to October.

Pupae: May and June (hibernates as prepupal larva in a tough cocoon attached to twigs or branches of its food plant).

Adults: Late June to early August.

#### Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera: <i>Compsilura concinnata</i> Meig.....	3	3	3	293
Hymenoptera: <i>Psyecophagus omnivorus</i> Walk.....	4	1	1	227

#### LITHACODES FASCIOLA H-S.

Food plants: Bayberry, wild cherry, and oak.

Occurrence: Collections from Kingston, N.H.; and Melrose and Revere, Mass.

Totals received: Collections, 6; larvae, 31; years, 2.

Larvae: August and September.

Pupae: Cocoon from fall to June (probably hibernates as a prepupal larva and pupates in the spring).

Adults: Late June.

#### Parasite

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Hymenoptera: <i>Apanteles empretiae</i> Vier.....	7	1	1	1

#### PACKARDIA GEMINATA PACK.

Food plant: Wild cherry.

Occurrence: One larva collected at Wakefield, Mass.

Larva: August and September.

Pupa: Cocoon formed in September.

Adult: June.

#### TORTRICIDIA FLEXUOSA GR.

Food plants: Gray birch and wild black cherry.

Occurrence: Collections from Melrose, Mass.

Totals received: Collections, 2; larvae, 3; years, 1.

Larvae: August and September.

Pupae: Cocoons formed in September.

Adults: July.

#### TORTRICIDIA CAESONIA GR.

Food plant: Oak.

Occurrence: One larva collected at Saugus, Mass.

Larva: August and September.

Pupa: Cocoon formed first of October.

Adult: July.

#### LAGOA CRISPATA PACK.

Food plants: Apple, aspen, speckled alder, wild black cherry, and various other deciduous growths.

Occurrence: Collections from Wakefield and Westerly, R.I.; Manchester, Conn.; Pachogue, N.Y.; Bound Brook, Old Bridge, and Two Bridges, N.J.; and Dingmans and Hopewell, Pa. Rearings indicate one generation in region from which collections were taken.

Totals received: Collections, 11; larvae, 192; years, 7.

Larvae: July to September.

Pupae: May and June. Hibernates as a prepupal larva in cocoon.

Adults: June and July.

### Parasites

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Diptera:				
<i>Phorocera claripennis</i> Macq.	1	1	1	51
Tachinidae (unidentified puparia)	27	3	3	143

### UNIDENTIFIED SPECIES OF COCHLIDIIDAE

Food plants: Apple and wild cherry.

Occurrence: Collections from Roycefield, N.J.; and Raubsville, Pa.

Totals received: Collections, 2; larvae, 4; years, 2.

Larvae: August.

Pupae and adults: Not reared.

### Parasite

	Parasite specimens	Years recovered	Collections yielding this parasite	
			Number of collections	Number of larvae
Hymenoptera:				
<i>Apanteles schaffneri</i> Mues.	*3	2	2	4

## PARASITE-HOST LIST

### DIPTERA

#### FAMILY BOMBYLIIDAE

##### VILLA ALTERNATA SAY

Host: Unidentified noctuid.

Locality: Lynnfield, Mass.

Adults: July and August.

Number per host: One.

Generations: Number not known.

Hibernation: Method not known.

#### FAMILY TACHINIDAE

##### ICTERICOPHYTO SPINOSA COQ.

Hosts: *Conistra indirecta* Walk., *Brephos infans* Mösch., *Alsophila pometaria* Harr., *Erannis tiliaria* Harr.

Localities: Wear, N.H.; Barre and Colchester, Vt.; Lunenburg, Lynnfield, Melrose, Natick, Needham, Reading, and Winchester, Mass.; Cranberry Lake, N.Y.; and Mendham, Morristown, and Somerville, N.J.

Adults: Late April to May.

Number per host: One.

Generations: One.

Hibernation: In the puparium.

## CARTOCOMETES IO ALD.

Hosts: *Malacosoma americana* Fab., *M. dissstria* Hbn.

Localities: Topsham, Maine; Milford, N.H.; Bradford, Ferrisburg, and Newbury, Vt.; Abington, Marion, Medfield, Melrose, Provincetown, Saugus, and Westwood, Mass.; Putnam, Conn.; and Bridgewater, N.J.

Adults: April and May.

Number per host: One.

Generations: One.

Hibernation: In the puparium.

## GYMNOPHTHALMA AMERICANA TOWN.

Host: *Schizura concinna* S. and A.

Localities: Many in Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, and Pennsylvania.

Adults: June to early August, occasionally September.

Number per host: Ranges from one to four.

Generations: One, sometimes a partial second.

Hibernation: In the puparium.

## THRYPTOCERA FLAVIPES COQ.

Hosts: *Brephos infans* Mosch., *Cosymbia lumenaria* Hbn.

Localities: Burnham, Maine; and Melrose, Mass.

Adults: June, and July to August.

Number per host: One or two.

Generations: Two.

Hibernation: Method not known.

## ACTIA SP.

Hosts: *Catocala relicta* Walk., unidentified *Catocala*.

Localities: Cheshire and Melrose, Mass.

Adults: June.

Number per host: As many as 15.

Generations: One.

Hibernation: In the puparium.

## ACTIA SP., NEAR PALLORIS COQ.

Hosts: *Eugonobapta nivosaria* Guen., *Ennomos subsignarius* Hbn.

Localities: Bedford and Melrose, Mass.

Adults: May, and July to August.

Number per host: As many as three.

Generations: At least two.

Hibernation: Method not known.

## ANACHAETOPSIS TORTRICIS COQ.

Host: *Thyridopteryx ephemeraeformis* Haw.

Localities: Bridgewater and Plainfield, N.J.

Adults: June to July, and August to September.

Number per host: One.

Generations: At least two.

Hibernation: Method not known.

## CHAETOPHLEPSIS ORBITALIS WEBBER

Host: *Cingilia catenaria* Dru.

Localities: Amherst and Effingham, N.H.; Bernardston, Bridgewater, Bewster, Deerfield, Lancaster, Orange, Sherborn, and Sudbury, Mass.; and Westerly, R.I. Adults: June, occasionally late July to August.

Number per host: A few records of one each. All rearings from bulk collections.

Generations: One, sometimes a partial second.

Hibernation: In the puparium.

## CHAETOPHLEPSIS TARSALIS Town.

Hosts: *Alypia octomaculata* Fab., *Pheosia rimosa* Pack.  
 Localities: West Forks, Maine; Everett, Lynn, Melrose, Revere, Somerville, and Wakefield, Mass.; and Elizabeth, N.J.  
 Adults: June and July.  
 Number per host: One to three.  
 Generations: One.  
 Hibernation: In the puparium.

## CHAETOPHLEPSIS SP.

Host: *Catocala antinympha* Hbn.  
 Locality: Old Town, Maine.  
 Adults: June and August.  
 Number per host: One.  
 Generations: Two.  
 Hibernation: Method not known.

## PELATACHINA PELLUCIDA CoQ.

Hosts: *Hamadryas milberti* Godt., *Hamadryas antiopa* L., and *Cynthia atlanta* L.  
 Localities: A great many in New England, New York, and New Jersey.  
 Adults: May to early June.  
 Number per host: One to four.  
 Generations: One.  
 Hibernation: In the puparium.

The records show that quite often both this species and *Compsilura concinnata* issue from one host larva.

## METAPLAGIA OCCIDENTALIS CoQ.

Host: *Hyloicus luscitiosa* Clem.  
 Locality: Wakefield, Mass.  
 Adults: June and July.  
 Number per host: As many as 11.  
 Generations: One.  
 Hibernation: In the puparium.

## BLEPHARIGENA SPINOSULA BIGOT

Host: *Cirphis unipuncta* Haw.  
 Locality: Marshfield, Mass.  
 Adults: July.  
 Number per host: One, possibly two.  
 Generations: Number not known.  
 Hibernation: Method not known.

## CYRTOPHLOEBA COQUILLETTI ALD.

Hosts: *Conistra* sp., *Epiglaea apiata* Gr., unidentified Noctuidae.  
 Localities: Carver, Lunenburg, and Marion, Mass.  
 Adults: May.  
 Number per host: One.  
 Generations: One.  
 Hibernation: In the puparium.

## VORIA RURALIS MEIG.

Hosts: *Autographa brassicae* Riley, unidentified noctuid.  
 Localities: Bangor, Maine; Blackwell's Mills, N.J.  
 Adults: June, July, and August.  
 Number per host: As many as four.  
 Generations: At least two.  
 Hibernation: Method not known.

## BELVOSIA BIFASCIATA FAB.

Hosts: *Hemileuca maia* Dru. or *lucina* Hy. Edw., *Anisota rubicunda* Fab.  
 Localities: Deering, N.H.; Lunenburg and Townsend, Mass.; Bridgewater, N.J.  
 Adults: August to October.  
 Number per host: One.  
 Generations: Two.  
 Hibernation: Method not known.

## BELVOSIA TOWNSENDI ALD.

Host: *Eacles imperialis* Dru.  
 Locality: Bound Brook, N.J.  
 Adults: July and August.  
 Number per host: One or more.  
 Generations: One.  
 Hibernation: In the puparium.

## BELVOSIA UNIFASCIATA DESV.

Host: *Cirphis unipuncta* Haw.  
 Locality: Marshfield, Mass.  
 Adults: July and August.  
 Number per host: One (puparium formed in pupa of host).  
 Generations: Number not known.  
 Hibernation: Method not known.

## LINNAEMYIA COMTA FALL.

Host: Unidentified noctuid.  
 Locality: Bangor, Maine.  
 Adults: July (from host larvae collected in June).  
 Number per host: One.  
 Generations: Number not known.  
 Hibernation: Method not known.

## ERNESTIA AMPELUS WALK.

Hosts: *Hyphantria cunea* Dru., *Datana integerrima* G. and R., *Malacosoma americana* Fab., *M. disstria* Hbn.  
 Localities: Many in New England, New York, and New Jersey.  
 Adults: Late April to early June, middle of July to August.  
 Number per host: Records indicate one.  
 Generations: One or two.  
 Hibernation: In the puparium—usually in leaf mold.

## ERNESTIA SP. (1) (? ARCUATA TOT.)

Host: *Conistra devia* Grt.  
 Localities: Carmel, Charleston, Ellsworth, Glenburn, Hampden, Orono, and Plymouth, Maine.  
 Adults: May and June.  
 Number per host: One.  
 Generations: One.  
 Hibernation: In the puparium.

## ERNESTIA SP. (2)

Host: *Ennomos subsignarius* Hbn.  
 Locality: Middleboro, Mass.  
 Adults: May to June and July.  
 Number per host: One.  
 Generations: At least two.  
 Hibernation: Method not known.

## ERNESTIA SP. (3)

Host: *Cosmia canescens* Behr.  
 Locality: Somerville, N.J.  
 Adults: May.  
 Number per host: Probably one.  
 Generations: One.  
 Hibernation: In the puparium.

## ERNESTIA SP. (4)

Host: *Graptolitha antennata* Walk.  
 Localities: Bound Brook and Bridgewater, N.J.  
 Adults: May.  
 Number per host: Probably one.  
 Generations: One.  
 Hibernation: In the puparium.

## ERNESTIA SP. (5)

Host: *Euchaetias egle* Dru.  
 Locality: Clayton, N.Y.  
 Adults: May to June, and July to August.  
 Number per host: One, possibly two.  
 Generations: At least two.  
 Hibernation: In the puparium.

## ERNESTIA SP. (6)

Host: *Datana ministra* Dru.  
 Localities: Hermon and Wallagrass, Maine; Homer and Hopkinton, N.Y.  
 Adults: April to May, and July to August.  
 Number per host: One, possibly two.  
 Generations: Two.  
 Hibernation: In the puparium.

## ERNESTIA SP. (7)

Hosts: *Diacrisia virginica* Fab.; *Estigmene acrea* Dru.  
 Localities: Canaan and Canterbury, N.H.; and Barre, Vt.  
 Adults: May and June (from larvae collected late in August of previous year).  
 Number per host: One.  
 Generations: Probably two.  
 Hibernation: In the puparium.

## ERNESTIA SP. (8)

Hosts: Unidentified Noctuidae.  
 Locality: Bangor, Maine.  
 Adults: April to June (from larvae collected in August of previous year).  
 Number per host: One or two.  
 Generations: Probably two.  
 Hibernation: In the puparium.

## ERNESTIA SP. (9)

Hosts: *Amphydra pyramidoides* Gn., *Graptolitha* sp.  
 Localities: Unity, Maine; Fair Haven, Vt.; Ayer, North Andover, and Saugus, Mass.; Garrison, N.Y.; and Bound Brook, Bridgewater, and Hillsboro, N.J.  
 Adults: May and June.  
 Number per host: One or two, possibly more.  
 Generations: One.  
 Hibernation: In the puparium.

## ERNESTIA SP. (10) (? BICARINA TOT.)

Host: *Barathra curialis* Smith.

Localities: Fort Kent and Frenchville, Maine.

Adults: Late May to June (from larvae collected latter part of August of previous year).

Number per host: One.

Generations: Possibly two.

Hibernation: In the puparium.

## CHRYSOTACHINA ALCEDO LOEW

Host: *Cicinnus melsheimeri* ‡ Harr.

Locality: Manchester, Conn.

Adults: July.

Number per host: Apparently one.

Generations: Possibly two.

Hibernation: As maggot in host.

## ZENILLIA AFFINIS FALL.

Hosts: *Phragmatobia fuliginosa rubricosa* ‡ Harr., *Isia isabella* S. and A. *Estigmene acrea* Dru.

Localities: Bangor, Maine; Claremont and Rochester, N.H.; Hartford, Vt.; Lunenburg, Melrose, and Wakefield, Mass.; and Glendale, R.I.

Adults: May to October.

Number per host: One or two.

Generations: Two, or possibly three.

Hibernation: As maggot in host larva.

## ZENILLIA AMPLEXA COQ.

Hosts: *Notolophus antiqua* L., *Hemerocampa leucostigma* S. and A.

Localities: Many in Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania.

Adults: June to July, and July to October.

Number per host: One.

Generations: One or two, depending upon the locality.

Hibernation: In the puparium.

## ZENILLIA BLANDA O. S.

Hosts: *Polygonia interrogationis* Fab., *Cynthia atlanta* L., *Epagyreus tityrus* ‡ Fab., *Smerinthus geminatus* Say, *Sphecodina abbottii* Swa., *Hyphantria cunea* ‡ Dru., *Trachea turbulenta* ‡ Hbn., unidentified *Catocala*, *Notolophus antiqua* L., *Calocalpe undulata* ‡ L., *Cingilia catenaria* Dru., *Ennomos subsignarius* Hbn., *Thyridopteryx ephemeraeformis* Haw.

Localities: Many in Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania.

Adults: June to August, and late July to October.

Number per host: Generally one.

Generations: Two. (There are indications, in a few instances, of a single generation.)

Hibernation: As maggot in host pupa.

## ZENILLIA CERATOMIAE COQ.

Hosts: *Cycnia tenera* ‡ Hbn., *C. inopinatus* ‡ Hy. Edw., *Euchaetias egle* ‡ Dru.

Localities: Adams, Hingham, Holliston, and Westford, Mass.; Clayton, N.Y.; Bound Brook, Newton, North Branch, and Somerville, N.J.; and Milford, Pa.

Adults: June to September.

Number per host: One.

Generations: One, sometimes two.

Hibernation: In host pupa.

**ZENILLIA EUDRYAE TOWN.**

Host: *Euthisanotia grata* Hbn.  
 Localities: Claremont, N.H.; Castleton, Vt.; Andover and Worthington, Mass.; Rouses Point, N.Y.; and Andover, N.J.  
 Adults: July and August.  
 Number per host: One to eight.  
 Generations: One.  
 Hibernation: In the puparium.

**ZENILLIA FORMOSA A. AND W.**

Host: *Automeris io* ♀ Fab.  
 Localities: Many in Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania.  
 Adults: May to July.  
 Number per host: One to eight.  
 Generations: One.  
 Hibernation: As maggot in host pupa.

**ZENILLIA FUTILIS O. S.**

Hosts: *Hamadryas milberti* Godt., *Cynthia atlanta* L., *C. cardui* L., *Euchaetias egle* ♀ Dru., *Nephelodes emmedonia* Cram., *Nycteola revayana* Scop., *Malacosoma americana* Fab., *M. disstria* Hbn., *Ennomos subsignarius* Hbn.  
 Localities: Many in Maine, New Hampshire, Massachusetts, New York, New Jersey, and Pennsylvania.  
 Adults: May to June, June to August.  
 Number per host: One or two.  
 Generations: Two or more.  
 Hibernation: As maggot in host pupa.

**ZENILLIA HELVINA COQ.**

Hosts: *Amphidasis cognataria* Gn., *Nacophora queraria* S. and A., unidentified Geometridae.  
 Localities: Many in Maine, New Hampshire, Massachusetts, Connecticut, New York, New Jersey, and Pennsylvania.  
 Adults: Middle of June to August.  
 Number per host: One to six.  
 Generations: One.  
 Hibernation: In the puparium.

**ZENILLIA LOBELIAE COQ.**

Host: *Acronycta grisea* Walk.  
 Localities: Jackman, and West Forks, Maine.  
 Adults: Late June to July.  
 Number per host: One or two.  
 Generations: One.  
 Hibernation: In the puparium.

**ZENILLIA PROTUBERANS A. AND W.**

Hosts: *Hyphantria cunea* Dru., *Datana integerrima* G. and R., *Malacosoma americana* Fab., *M. disstria* Hbn.  
 Localities: Many in New England, New York, New Jersey, and Pennsylvania.  
 Adults: Late April to middle of June, occasionally July.  
 Number per host: One to three.  
 Generations: One, occasionally a partial second.  
 Hibernation: In the puparium.

**ZENILLIA RECLINATA A. AND W.**

Hosts: *Diacrisia virginica* Fab., *Estigmene acrea* Dru., unidentified Arctiidae.  
 Localities: Many in Maine, New Hampshire, Massachusetts, Rhode Island and New Jersey.  
 Adults: June to October.  
 Number per host: Usually 1 or 2, though in one case as many as 12.

Generations: At least two.

Hibernation: One record from an unidentified arctiid indicates the species may hibernate as a maggot in the host larva.

#### ZENILLIA VIRILIS A. AND W.

Hosts: *Polygonia interrogationis* Fab., *Cynthia atlanta* L., *Epargyreus tityrus* † Fab., *Ceratomia catalpae* Bois., *Platysamia cecropia* † L., *Catlosamia promethea* † Dru., *Hyphantria cunea* † Dru., *Polia legitima* Grt., *Trachea turbulenta* † Hbn., *Acronycta grisea* † Walk., *A. leporina vulpina* † Grt., *A. dactyliina* † Grt., *A. impressa* † Walk., *A. obliqua* S. and A., *Metallopha strigosa* † Grt., *M. albosigma* † Fitch, *Glaphyria septentrionalis* † Walk., *Anacampodes ephyraria* Walk., *Phigalia titea* Cram., *Cingilia catenaria* Dru.

Localities: Many in Maine, Massachusetts, Rhode Island, Connecticut, New York, and New Jersey.

Adults: Late June to August, and August to September.

Number per host: One to five.

Generations: Two.

Hibernation: As maggot in pupa of host.

#### ZENILLIA VULGARIS FALL (COMPLEX)

Hosts: *Ascia rapae* † L., *Danaus menippe* Hbn., *Hemileuca maia* Dru. or *lucina* Hy. Edw., *Cirphis unipuncta* Haw., *Graptolitha antennata* Walk., unidentified noctuid, *Alsophila pometaria* Harr., *Synchlora rubrifrontaria* Pack., *Erannis tiliaria* Harr., *Cingilia catenaria* Dru., *Ennomos subsignarius* Hbn.

Localities: Many in New England, New York, and New Jersey.

Adults: May to June, and late June to October.

Number per host: One, occasionally two.

Generations: Two or more.

Hibernation: As maggot in pupa of host.

#### ZENILLIA, N. SP. (1)

Hosts: *Alypia octomaculata* Fab., *Psychomorpha epimenis* Dru.

Localities: Castleton, Vt.; Everett, Revere, Somerville, Wilmington, and Worcester, Mass.

Adults: Late May to June.

Number per host: One to three.

Generations: One.

Hibernation: In the puparium.

#### ZENILLIA, N. SP. (2)

Hosts: *Notolophus antiqua* L., *Hemerocampa leucostigma* S. and A., *Olene pini* Dyar., *O. atomaria* Walk.

Localities: Bangor, Bucksport, Franklin, and Stockton, Maine; Boylston, Saugus, and Weston, Mass.; Camden and Trenton, N.J.; and Mount Pocono, Pa.

Adults: May and June.

Number per host: One to seven.

Generations: One.

Hibernation: In the puparium.

#### ZENILLIA, N. SP. (3)

Host: *Cerura cinerea* Walk.

Locality: Melrose, Mass.

Adults: June.

Number per host: As many as five.

Generations: One, possibly a second.

Hibernation: In the puparium.

#### ZENILLIA, N. SP. (4)

Hosts: *Halisidota tessellaris* S. and A., *Diacrisia virginica* Fab., *Estigmene acrea* Dru.

Localities: Claremont, N.H.; and Bound Brook, Bridgewater, Hopewell, and North Branch, N.J.

Adults: May to July, and August to September.

Number per host: One.

Generations: Two.

Hibernation: In the puparium.

#### ZENILLIA, N. SP. (5)

Host: *Pheosia rimosa* Pack.

Localities: Alton, Ellsworth, Greenbush, Hudson, Jackman, Lily Bay, Moose River, Parlin Pond, Sandy Bay, Stillwater, and West Forks, Maine.

Adults: June and July.

Number per host: As many as eight.

Generations: One.

Hibernation: In the puparium.

#### NEAR ZENILLIA SP.

Host: Unidentified noctuid.

Locality: Bound Brook, N.J.

Adults: July.

Number per host: As many as seven.

Generations: Number not known.

Hibernation: Method not known.

#### PHOROCERA CLARIPENNIS MACQ.

Hosts: *Polygonia interrogationis* Fab., *P. comma* Harr., *Hamadryas antiopa* L., *Epagyreus tityrus* Fab., *Ceratomia catalpae* Bois., *Platysamia cecropia* L., *Callosamia promethea* Dru., *Automeris io* Fab., *Hemileuca maia* Dru. or *lucina* Hy. Edw., *Anisota senatoria* S. and A., *A. rubicunda* Fab., *Halisidota tessellaris* S. and A., *Hyphantria cunea* Dru., *Euchaetis egle* Dru., *Utetheisa bella* L., *Cirphis unipuncta* Haw., *Graptolitha (disposita and innominata)*, *Datana ministra* Dru., *D. angusii* G. and R., *D. perspicua* G. and R., *D. integerrima* G. and R., *Schizura concinna* S. and A., *Hemerocampa leucostigma* S. and A., *Malacosoma americana* Fab., *M. disstria* Hbn., *Cingilia catenaria* Dru., *Thyridopteryx ephemeraeformis* Haw., *Lagoa crispata* Pack.

Localities: Many in New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania.

Adults: Late April to June, and June to September.

Number per host: One to ten.

Generations: Two or more.

Hibernation: In the puparium.

#### PHOROCERA ERECTA COQ.

Hosts: *Nycteola revayana* Scop. (Also reared from tortricids and pyralids.)

Locality: Glenburn, Maine.

Adults: June to July, and July to August.

Number per host: One.

Generation: At least two.

Hibernation: Method not known.

#### PHOROCERA LEUCANIAE COQ.

Hosts: *Datana ministra* Dru., *Hemerocampa leucostigma* S. and A.

Localities: Westerly, R.I.; Camden, Trenton, and West Long Branch, N.J.; and Philadelphia, Pa.

Adults: June to October.

Number per host: One.

Generations: Two or more.

Hibernation: Method not known.

#### PHOROCERA LONGIUSCULA WALK.

Host: *Phobetron pitheciun* ‡ S. and A.

Locality: New Britain, Conn.

Adults: August.

Number per host: One.

Generations: One.

Hibernation: As maggot in host prepupal larva.

## PHOROCERA SP., NEAR ZENILLIA LOBELIAE COQ.

Host: *Acronycta betulae* Riley.  
 Locality: Hillsboro, N.J.  
 Adults: June to July and August.  
 Number per host: One(?).  
 Generations: At least two.  
 Hibernation: Method not known.

## PHOROCERA PACHYPYGA A. AND W.

Host: *Malacosoma disstria* Hbn.  
 Localities: Franklin and Princeton, N.J.  
 Adults: Late April to May.  
 Number per host: One(?).  
 Generations: One.  
 Hibernation: In the puparium.

## PHOROCERA STERNALIS COQ.

Host: *Acronycta impressa* Walk.  
 Localities: Bangor, Brewer, Orland, Orrington, and Stockton, Maine.  
 Adults: May to June, and August to September.  
 Number per host: As many as five.  
 Generations: Two.  
 Hibernation: In the puparium.

## MADREMYIA SAUNDERSII WILL.

Hosts: *Malacosoma disstria* Hbn., *Cingilia catenaria* Dru., *Elloptia fiscellaria* Guen., *Ennomos subsignarius* Hbn.  
 Localities: Bath, Maine; Bernardston, Bridgewater, Eastham, and Middleboro, Mass.; and Theresa, N.Y.  
 Adults: May to July, and July to September.  
 Number per host: One.  
 Generations: Two, possibly more.  
 Hibernation: Method not known.

## COMPSILURA CONCINNATA MEIG.

Hosts: *Papilio philenor* L., *P. ajax* † L., *P. glaucus turnus* † L., *P. troilus* † L., *Ascia rapae* † L., *Danaus menippe* Hbn., *Euphydryas phaeton* Dru., *Lemonias harrisii* Scud., *Polygonia interrogationis* Fab., *P. comma* Harr., *Hamadryas j-album* Bdv. and Lec., *H. milberti* Godt., *H. antiopa* L., *Cynthia atalanta* L., *C. virginianensis* Dru., *Basilarchia astyanax* Fab., *B. archippus* Cram., *Epargyreus tityrus* † Fab., *Erynnis icelus* Scud. and Burg., *Erynnis* sp. (*juvenalis* Fab. and *horatius* Scud. and Burg.), *Phlegethontius quinguemaculata* Haw., *Ceratomia undulosa* † Walk., *C. catalpae* Bois., *Hyloicus chersis* † Hbn., *H. gordius* † Cram., *H. drupiferarum* S. and A., *Smerinthus geminatus* † Say, *S. cerisyi* † Krby., *Paonias excaecata* † S. and A., *P. myops* † S. and A., *Hemaris thysbe* Fab., *Pholus satellitia pandorus* Hbn., *P. achemon* Dru., *Ampeloea myron* † Cram., *Sphecodina abbottii* Swain., *Deidamia inscriptum* † Harr., *Amphion nessus* Cram., *Sphinx gallii intermedia* † Krby., *S. lineata* Fab., unidentified Sphingidae, *Platysamia cecropia* L., *Callosamia promethea* † Dru., *Telea polyphemus* † Cram., *Automeris io* † Fab., *Hemileuca maia* Dru. or *lucina* Hy. Edw., *Anisota senatoria* S. and A., *A. virginiana* Dru., *A. rubicunda* Fab., *Ctenucha virginica* Charp., *Halisidota caryaefolia* Harr., *H. maculata* † Harr., *H. tessellaris* † S. and A., *H. harrisii* † Walsh, *Diacrisia virginica* † Fab., *Hyphantria cunea* † Dru., *Estigmene acrea* † Dru., *Euchaetis egle* † Dru., unidentified Arctiidae, *Alypia octomaculata* † Fab., *Polia adjuncta* Bdv., *P. legitima* † Grt., *Ceramica picta* † Harr., *Cirphis unipuncta* Haw., *Graptolitha* sp. (including *disposita* Morr., *innominata* Smith, and *petulca* Grt.), *Graptolitha antennata* Walk., *Amphiptyra pyramidoides* Guen., *Trachea turbulenta* † Hbn., *Acronycta superans* Guen., *A. impleta* Walk., *A. furcifera* † Guen., *A. americana* † Harr., *A. dactylina* † Grt., *A. impressa* † Walk., *A. oblinita* † S. and A., *A. lanceolaria* Grt., unidentified sp. of *Acronycta*, *Simyra henrici* † Grt., unidentified Catocalinae, *Autographa brassicae* Riley, *Calpe canadensis* Beth., *Scoliopteryx libatrix* L., *Plathypena scabra* Fab., unidentified Noctuidae, *Melalopha inclusa* † Hbn., *Datana ministra* † Dru., *D. angustii* † G. and R.,

*D. major* G. and R., *D. perspicua* G. and R., *D. integerrima* G. and R., *Pheosia rimosa* † Pack., *Nadata gibbosa* † S. and A., *Symmerista albifrons* † S. and A., *Heterocampa umbrata* Walk., *H. guttivitta* Walk., *Schizura concinna* † S. and A., *S. badia* † Pack., *S. unicornis* † S. and A., *Cerura occidentalis* Lint., *Fentonia marthesia* † Cram., *Porthetria dispar* L., *Nygma phaeorrhoea* Don., *Stilpnoptia salicis* L., *Notolophus antiqua* L., *Hemerocampa leucostigma* S. and A., *Olene basiflava* Pack., *Olene* sp., *Malacosoma americana* Fab., *M. disstria* Hbn., *Epicnaptera americana* † Harr., *Calocalpe undulata* L., *Itame ribearia* Fitch, *Amphidasis cognataria* Guen., *Phigalia titea* Cram., *Cingilia catenaria* Dru., *Eugonobapta nivosaria* Gn., *Ennomos subsignarius* Hbn., *Cnidocampa flavescens* Walk.

Localities: Many in New England, New York, New Jersey, and Pennsylvania.

Adults: May to June, and July to November.

Number per host: From 1 to 5.

Generations: Two to four.

Hibernation: As maggot in host prepupa or pupa.

#### ACHAETONEURA ALETIAE RILEY

Hosts: *Hamadryas antiopa* L., *Epargyreus tityrus* Fab., *Halisidota tessellaris* S. and A., *H. harrisii* Walsh, *Hyphantria cunea* Dru., *Hemerocampa leucostigma* S. and A.

Localities: Many in Rhode Island, New York, New Jersey, and Pennsylvania.

Adults: May, and late June to October.

Number per host: Often solitary.

Generations: Two or more.

Hibernation: Method not known.

#### ACHAETONEURA ANISOTAE WEBBER

Hosts: *Anisota senatoria* † S. and A., *A. rubricunda* † Fab.

Localities: Tamworth, N.H.; Saint Albans, Vt.; Westerly, R.I.; Cromwell, Deep River, Putnam, and Stonington, Conn; Alexandria and Elmira, N.Y.; and New Brunswick, N.J.

Adults: June to August.

Number per host: One, or possibly two.

Generations: One.

Hibernation: As maggot in host pupa.

#### ACHAETONEURA ARCHIPIVORA WILL.

Hosts: *Ascia rapae* L., *Danaus menippe* Hbn., *Hamadryas milberti* Godt. *H. antiopa* L., *Cynthia atlanta* L., *C. cardui* L., *Alypia octomaculata* Fab., *Malacosoma americana* Fab.

Localities: Many in Maine, New Hampshire, Massachusetts, Rhode Island, New York, New Jersey, and Pennsylvania.

Adults: May, and June to October.

Number per host: From 1 to 7.

Generations: Two or three.

Hibernation: Method not known.

#### ACHAETONEURA CUCULLIAE WEBBER

Host: *Dasylophia anguina* S. and A.

Localities: Maybrook, N.Y.; and Patterson, N.J.

Adults: June to July, and September.

Number per host: As many as four.

Generations: Two.

Hibernation: As maggot in host pupa (?).

#### ACHAETONEURA EUCHAETIAE WEBBER

Host: *Euchaetias egle* † Dru.

Localities: Many in Massachusetts, Rhode Island, New York, New Jersey, and Pennsylvania.

Adults: June to August, and late August to October.

Number per host: Usually solitary.

Generations: One, though sometimes a partial second.

Hibernation: As maggot in host pupa.

## ACHAETONEURA FRENCHII WILL. (COMPLEX)

Hosts: *Papilio ajax* ♀ L., *P. glaucus turnus* L., *P. troilus* L., *Ascia rapae* L., *Hamadryas antiopa* L., *Cynthia atalanta* L., *Phlegethonius quinquemaculata* ♀ Haw., *Ceratomia undulosa* ♀ Walk., *C. catalpae* Bdv., *Hyloicus chersis* Hbn., *H. kalmiae* S. and A., *Smerinthus geminatus* ♀ Say, *Paonias myops* S. and A., unidentified Sphingidae, *Samia walkeri advena* Pack., *Platysamia cecropia* L., *Callosamia promethea* ♀ Dru., *Telea polyphemus* ♀ Cram., *Halisidota caryaef* Harr., *H. tessellaris* ♀ S. and A., *Diacrisia virginica* Fab., *Hyphantria cunea* ♀ Dru., *Datana ministra* ♀ Dru., *D. angusii* ♀ G. and R., *D. integerrima* ♀ G. and R., *Heterocampa* sp., *Schizura* sp., *Hemerocampa leucostigma* S. and A., *Malacosoma americana* Fab., *M. disstria* Hbn., and an unidentified geometrid.

Localities: Many in New England, New York, New Jersey, and Pennsylvania.

Adults: May to June, and July to October.

Number per host: From 1 to 27.

Generations: Two or more.

Hibernation: As maggot in host pupa.

## ACHAETONEURA MELALOPHAE ALLEN

Host: *Melalopha inclusa* ♀ Hbn.

Localities: Many in Rhode Island, Connecticut, New York, and New Jersey.

Adults: Late May to July, and July to September.

Number per host: One in many cases though sometimes 4 or 5.

Generations: Two.

Hibernation: As maggot in host pupa.

## ACHAETONEURA PIPERI TOWN.

Host: *Schizura unicornis* S. and A.

Locality: Elizabeth, N.J.

Adults: May to June, and July to August.

Number per host: One.

Generations: At least two.

Hibernation: Method not known.

## ACHAETONEURA SAMIAE WEBBER

Hosts: *Platysamia cecropia* ♀ L., *Malacosoma americana* Fab.

Localities: Many in Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, New York, and New Jersey.

Adults: May and June.

Number per host: From a few up to 110.

Generations: Two.

Hibernation: As full-grown maggot in host pupa and occasionally as puparia in host cocoon.

## ACHAETONEURA, N. SP.

Host: *Heterocampa umbrata* Walk.

Localities: Hawley and Plainfield, Mass.

Adults: July and September.

Number per host: One (?).

Generations: At least two.

Hibernation: Method not known.

## NEAR ACHAETONEURA (N. SP.) (1)

Host: *Acronycta lanceolaria* Grt.

Localities: Ayer, Dover, Wakefield, and Wilmington, Mass.

Adults: Late May to July.

Number per host: One to nine.

Generations: One.

Hibernation: In the puparium.

## NEAR ACHAETONEURA (N. SP.) (2)

Host: *Simyra henrici* ♀ Grt.

Locality: Revere, Mass.

Adults: May and June (from host larvae collected late in September).

Number per host: One.  
 Generations: Probably two.  
 Hibernation: As maggot in host pupa.

#### NEAR THYSANOMYIA

Host: *Hemaris thysbe*‡ Fab.  
 Localities: Lawrence and Wakefield, Mass.  
 Adults: June to July, and August to September.  
 Number per host: One to three.  
 Generations: Two.  
 Hibernation: As maggot in host pupa.

#### STURMIA SP., NEAR BAKERI COQ

Host: *Amphion nessus* Cram.  
 Locality: Melrose, Mass.  
 Adults: May and June.  
 Number per host: As many as six.  
 Generations: One.  
 Hibernation: In the puparium.

#### STURMIA FRAUDULENTA V. D. W.

Host: *Erynnis icelus*‡ Scud. and Burg.  
 Localities: Dover and Melrose, Mass.  
 Adults: June (host larvae collected the previous September)  
 Number per host: One.  
 Generations: Possibly two (?).  
 Hibernation: As maggot in full-grown host larva.

This host species pupates the latter part of April. The parasite maggot issues from the host pupa early in May and forms its puparium in the leaf mold.

#### STURMIA INCOMPTA V. D. W.

Host: *Ceratomia amyntor*‡ Hbn.  
 Locality: Concord, N.H.  
 Adults: July and September.  
 Number per host: Six to twelve.  
 Generations: Two.  
 Hibernation: As maggot in host pupa.

#### STURMIA NIGRITA TOWN.

Host: *Papaipema nebris* Guen.  
 Localities: Milford, N.H., and Melrose, Mass.  
 Adults: August and September.  
 Number per host: One.  
 Generations: Two.  
 Hibernation: Method not known.

#### STURMIA RICINORUM TOWN.

Hosts: *Diacrisia virginica* Fab., *Estigmene acrea*‡ Dru., *Utetheisa bella* L., unidentified arctiid.  
 Localities: Many in Maine, New Hampshire, Massachusetts, and New Jersey.  
 Adults: June and July.  
 Number per host: From one to seven.  
 Generations: Two, possibly three.  
 Hibernation: As maggot in host pupa.

#### STURMIA SCUTELLATA DESV.

Hosts: *Graptolitha* sp., unidentified *Catocala*, unidentified noctuid, *Datana integerrima* G. and R., *Symmerista albifrons* S. and A., *Porthetria dispar* L., *Malacosoma disstria* Hbn.  
 Localities: Many in New England.  
 Adults: May.

Number per host: One.

Generations: One.

Hibernation: In the puparium.

• This introduced parasite of *P. dispar* is rarely reared from native hosts.

#### EUMASICERA STERNALIS COQ.

Hosts: *Anisota senatoria* ‡ S. and A., *A. rubicunda* ‡ Fab.

Localities: Tamworth, N.H.; Cheshire and Lancaster, Mass.; Westerly, R.I.; and many in Connecticut, New York, and New Jersey.

Adults: June to August.

Number per host: One.

Generations: One, occasionally a partial second.

Hibernation: As maggot in host pupa.

#### EUMASICERA SP., NEAR STERNALIS COQ.

Hosts: *Acronycta impleta* Walk., *Acronycta* sp.

Localities: Moravia, N.Y.; and Mount Bethel, N.J.

Adults: June, and July to August.

Number per host: As many as six.

Generations: Two.

Hibernation: In the puparium (?).

#### CEROMASIA RUTILIA MEIG.

Host: *Cingilia catenaria* Dru.

Localities: Amherst and Effingham, N.H.; Bernardston, Deerfield, Greenfield, Lancaster, Lunenburg, Orange, Sherborn, and Sudbury, Mass.; Plainfield, Conn.; and Rome, N.Y.

Adults: June to July, and August to October.

Number per host: A few records indicate one. (Most of this material was reared in bulk, hence the few individual records.)

Generations: Two.

Hibernation: Method not known.

#### CEROMASIA SENILIS MEIG.

Hosts: *Macronoctua onusta* Grt., *Papaipema nebris* Guen., *Arzama obliqua* ‡ Walk.

Localities: Ogunquit, Maine; Dover, N.H.; Belmont, Dedham, Melrose, Peabody, Saugus, Wakefield, Westfield, and Woburn, Mass.; and Elizabeth, N.J.

Adults: May to June, and July to September.

Number per host: One to three.

Generations: Two.

Hibernation: As maggot in host larva.

#### CEROMASIA SP. (1)

Hosts: *Phigalia titea* Cram.

Localities: Hooksett, N.H.; Lunenburg, Lynnfield, and Melrose, Mass.; and Somerville, N.J.

Adults: May and June.

Number per host: One.

Generations: One.

Hibernation: In the puparium.

#### CEROMASIA SP. (2)

Host: *Lycia ursaria* Walk.

Locality: Manchester, Conn.

Adults: June.

Number per host: As many as eight.

Generations: One.

Hibernation: In the puparium.

## AUBAEANETIA ASSIMILIS TOWN.

Host: *Parallelia bistriaris* Hbn.  
 Localities: Athol, Cheshire, and Royalston, Mass.  
 Adults: June.  
 Number per host: One or possibly two.  
 Generations: One.  
 Hibernation: In the puparium.

## ANETIA HYPHANTRIAE TOT.

Hosts: *Halisidota tessellaris* † S. and A., *H. harrisii* † Walsh, *Diacrisia virginica* Fab., *Hyphantria cunea* † Dru., *Ceramica picta* Harr., *Graptolitha* sp., *G. antennata* Walk.

Localities: Many in Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, and New Jersey.  
 Adults: May to early July, and late July to September.  
 Number per host: One or two.  
 Generations: Two.  
 Hibernation: As maggot in host pupa.

## ANETIA SP. (COMPLEX)

Host: *Cingilia catenaria* Dru.  
 Localities: Amherst, N.H.; Brewster, Deerfield, Lancaster, Lunenburg, Sherborn, and Sudbury, Mass.; Westerly, R.I.; and Babylon and Rome, N.Y.  
 Adults: June to July, and August to October.  
 Number per host: One or possibly two.  
 Generations: Two.  
 Hibernation: In the puparium.

## ANETIA EUFITCHIAE TOWN.

Hosts: *Alsophila pometaria* Harr., *Elloptia fiscellaria* Guen.  
 Localities: Colchester, Vt.; Redwood and Theresa, N.Y.; and Mendham, Morristown, and Somerville, N.J.  
 Adults: May to early October.  
 Number per host: One or two.  
 Generations: One or two. (From *A. pometaria* collected in late May and June, adults issued during July and August, and also in late May and June of the next year. From *E. fiscellaria* collected in late August adults issued in late September and October.)  
 Hibernation: In the puparium (?).

## DEXODES AURIFRONS TOWN.

Host: *Anisota senatoria* S. and A.  
 Locality: Alexandria, N.Y.  
 Adults: July.  
 Number per host: One.  
 Generations: One.  
 Hibernation: As maggot or in puparium (?).  
 One recovery only from a bulk collection taken the previous August.

## EXORISTA MELLA WALK.

Hosts: *Polygonia interrogationis* Fab., *Hamadryas antiopa* L., *Callosamia promethea* Dru., *Cycnia tenera* Hbn., *Halisidota tessellaris* S. and A., *H. harrisii* Walsh, *Diacrisia virginica* Fab., *Isia isabella* † S. and A., *Estigmene acrea* Dru., *Euchaetias egle* † Dru., *Conistra indirecta* Walk., *Acronycta americana* Harr., *A. rubricoma* Guen., *Acronycta* sp., *Simyra henrici* Grt., *Melalopha inclusa* † Hbn., *Datana ministra* Dru., *D. integerrima* G. and R., *Schizura concinna* S. and A., *Notolophus antiqua* L., *Hemerocampa leucostigma* S. and A., *Olene basiflava* Pack., *Malacosoma americana* Fab., *M. disstria* Hbn., *Epicnaptera americana* Harr.

Localities: New England, New York, New Jersey, and Pennsylvania.  
 Adults: May, and June to October.  
 Number per host: Usually 1 or 2, though as many as 11 recorded.  
 Generations: Two or three.  
 Hibernation: As maggot in host larva or pupa.

## TACHINOMYIA SP. (1)

Hosts: *Orthosia hibisci* Grt., *Graptolitha antennata* Walk., *Graptolitha* sp., *Acronycta betulae* Riley, unidentified noctuid and *Malacosoma disstria* Hbn.

Localities: Many in Maine, Vermont, Massachusetts, and New Jersey.

Adults: May and June.

Number per host: One.

Generations: One.

Hibernation: In the puparium.

## TACHINOMYIA SP. (2)

Hosts: *Catocala fratercula* G. and R., unidentified Catocalinae.

Localities: Bound Brook, Bridgewater, and Hillsboro, N.J.

Adults: Late May to June.

Number per host: One.

Generations: One.

Hibernation: In the puparium.

## TACHINOMYIA SP. (3)

Host: *Alsophila pometaria* Harr.

Localities: South Portland, Maine; Natick, Reading, and Winchester, Mass.; Westerly, R.I.; and Bernardsville, Mendham, Morristown, and Somerville, N.J.

Adults: Late April to June.

Number per host: One.

Generations: One.

Hibernation: In the puparium.

## TACHINOMYIA SP. (4)

Host: *Phigalia titea* Cram.

Localities: Marlboro and Worcester, Mass.; and Port Jefferson, N.Y.

Adults: May and June.

Number per host: One.

Generations: One.

Hibernation: In the puparium.

## PSEUDOTACHINOMYIA WEBBERI SMITH

Hosts: *Alsophila pometaria* Harr., *Erannis tiliaria* Harr.

Localities: Andover, Claremont, Danbury, and Warner, N.H.; Barre, Jericho, Leicester, and Strafford, Vt.; Dover, Westwood, and Worcester, Mass.; New Milford, Conn.; Austerlitz, Chesterfield, and Cranberry Lake, N.Y.; and Morristown and Somerville, N.J.

Adults: May and June.

Number per host: One.

Generations: One.

Hibernation: In the puparium.

## BLEPHARIPEZA ADUSTA LOEW

Hosts: *Halisidota caryae* ‡ Harr., *H. maculata* ‡ Harr., *H. tessellaris* ‡ S. and A., *H. harrisii* ‡ Walsh.

Localities: Bangor, Newport, and Searsport, Maine; Rutland, Vt.; Danvers, Mass.; Curtis, Lowville, and Nicholville, N.Y.; Deal Beach and West Long Branch, N.J.; and Kingsley, Pa.

Adults: June and July.

Number per host: One.

Generations: One.

Hibernation: As maggot in host pupa.

## BLEPHARIPEZA EXUL TOWN.

Hosts: *Malacosoma americana* Fab., *M. disstria* Hbn.

Localities: Many in New England, New York, New Jersey, and Pennsylvania.

Adults: Late April to May.

Number per host: One.

Generations: One.

Hibernation: In the puparium.

## BLEPHARIPEZA FULVIPES BIGOT

Host: *Hemileuca maia* Dru. and *lucina* Hy. Edw.  
 Localities: Barrington, Candia, Concord, Deering, and Milford, N.H.; Dover, Groton, Lancaster, Lunenburg, Townsend, Webster, and Winchester, Mass.  
 Adults: May to July.  
 Number per host: One, occasionally two.  
 Generations: One.  
 Hibernation: In the puparium.

## BLEPHARIPEZA LEUCOPHRYS WIED.

Hosts: *Hyloicus chersis* Hbn., *Paonias excaecata* S. and A.  
 Localities: Winn, Maine; and Melrose, Mass.  
 Adults: June and July.  
 Number per host: As many as six.  
 Generations: One.  
 Hibernation: In the puparium.

## PARACHAETA FUSCA TOWN.

Host: *Isia isabella* † S. and A.  
 Localities: Rindge, N.H.; Putnam, Conn.; and Somerville, N.J.  
 Adults: June and July.  
 Number per host: One or two.  
 Generations: Possibly two.  
 Hibernation: As maggot in host larva.

## WINTHEMIA FUMIFERANAE TOT.

Hosts: *Graptolitha antennata* Walk., *Graptolitha* sp., *Conistra indirecta* Walk., *Amphipyra pyramidoides* Guen., *Alsophila pometaria* Harr., *Phigalia titea* Cram.  
 Localities: Rye, N.H.; Fair Haven, Vt.; Adams, Lunenburg, Melrose, and North Adams, Mass.; and Bernardsville, Morristown, and Somerville, N.J.  
 Adults: May and June.  
 Number per host: One or two.  
 Generations: One.  
 Hibernation: In the puparium.

## WINTHEMIA (?) QUADRIPISTULATA FAB.

Hosts: *Hamadryas milberti* Godt., *Ceramica picta* Harr., *Epiglaea apiata* Grt.  
 Localities: Bangor and Stetson, Maine; Boscawen, N.H.; and Acton, Carver, Melrose, and Wakefield, Mass.  
 Adults: May to September.  
 Number per host: One or two.  
 Generations: Two.  
 Hibernation: As full-grown maggot in soil.

## WINTHEMIA SINUATA REIN.

Hosts: *Hamadryas antiopa* † L., *Calpe candensis* † Beth., *Plathypena scabra* Fab., *Erannis tiliaria* Harr., *Cingilia catenaria* † Dru., Unidentified Geometridae †.  
 Localities: Amherst, N.H.; Bernardston, Brewster, Lunenburg, Melrose, Orange, and Reading Mass.; Cranberry Lake, and Montgomery, N.Y.; and Readington, N.J.  
 Adults: May to September.  
 Number per host: One to three.  
 Generations: At least two.  
 Hibernation: Method not known.

## WINTHEMIA DATANAEE TOWN.

Hosts: *Ceratomia catalpae* Bois, *Samia walkeri advena* † Pack., *Isia isabella* † S. and A., *Acronycta impleta* † Walk., *Datana ministra* Dru., *D. angusii* G. and R., *D. perspicua* G. and R., *D. integerrima* G. and R., *Pheosia rimosa* Pack.  
 Localities: Many in New England, New York, New Jersey, and Pennsylvania.  
 Adults: Late June to October.  
 Number per host: From 1 to 10 or more.  
 Generations: Apparently only 1 from hosts that are single-brooded, but sometimes 2 from hosts that are double-brooded.  
 Hibernation: As full-grown maggot in soil.

## WINTHEMIA DATANAE TOWN. (VAR. A.)

Hosts: *Catocala* sp., *Ianassa lignicolor* Walk., *Schizura ipomoeae* Dbdly., *S. concinna* S. and A., *S. badia* Pack., *S. unicornis* S. and A., *S. leptinoides* Grt.  
Localities: Many in Maine, Massachusetts, Connecticut, New York, and New Jersey.

Adults: May to October.

Number per host: From 1 to 4.

Generations: Two.

Hibernation: As full-grown maggot in soil.

## WINTHEMIA DATANAE TOWN. (VAR. B.)

Hosts: *Hyloicus gordius* Cram., *H. drupiferarum* S. and A., *Paonias excaecata* S. and A., *Cressonia juglandis* S. and A., *Anisota senatoria* S. and A., *A. rubicunda* Fab.

Localities: Many in New England, New York, and New Jersey.

Adults: June to August.

Number per host: From 1 to 14.

Generations: One.

Hibernation: As full-grown maggot in soil.

## WINTHEMIA DATANAE TOWN. (VAR. C.)

Hosts: *Diacrisia virginica* Fab., *Estigmene acrea* Dru., *Euchaetias egle* Dru., unidentified arctiid, *Hemerocampa leucostigma* S. and A.

Localities: Many in Maine, Massachusetts, Connecticut, New York, New Jersey, and Pennsylvania.

Adults: May to October.

Number per host: From 1 to 10.

Generations: At least two.

Hibernation: As full-grown maggot in soil.

## WINTHEMIA DATANAE TOWN. (VAR. D.)

Host: *Hypereschra stragula* Grt.

Localities: Haverhill, Mass.; and Quinebaug, Conn.

Adults: June and August.

Number per host: From 1 to 8.

Generations: At least two.

Hibernation: Method not known.

## WINTHEMIA RUFOPICTA BIGOT

Hosts: Unidentified sphingid, *Alypia octomaculata* Fab., *Agrotis c-nigrum* † L., *Ceramica picta* Harr., *Cirphis unipuncta* Haw., *Cucullia convexipennis* G. and R., *Graptolitha antennata* Walk., *Graptolitha* sp., *Xylena nupera* Lint., *Epiglaea apiata* † Grt., *Amphipyra pyramidoides* † Guen., *Autographa brassicae* Riley, *Heterocampa guttivitta* † Walk., *Alsophila pometaria* Harr.

Localities: Many in Massachusetts, Connecticut, New York, New Jersey, and Pennsylvania.

Adults: May to September.

Number per host: From 1 to 10.

Generations: Two, possibly three.

Hibernation: As full-grown maggot in soil.

## WINTHEMIA SP.

Hosts: *Platysamia cecropia* L., *Callosamia promethea* Dru., *Hemileuca maia* Dru. or *lucina* Hy. Edw., *Hyphantria cunea* Dru., *Catocala antinympha* Hbn., *C. minuta* Edw., *Melalopha inclusa* Hbn., *Symmerista albifrons* S. and A., *Ellopia fiscellaria* Guen.

Occurrence: New England, New York, and New Jersey.

Adults: Not reared.

Number per host: From 1 to 11.

Unissued puparia from these hosts were identified as belonging to the genus *Winthemia*. Specific determinations cannot be made until adults are reared.

## EUPOGONA OBSCURA COQ.

Hosts: *Papilio ajax* L., *Danaus menippe* Hbn.

Locality: Nantucket, Mass.

Adults: June to September.

Number per host: Two.

Generations: At least two.

Hibernation: Method not known.

## WAGNERIA HELYMUS WALK.

Hosts: *Graptolitha* sp., unidentified Noctuidae†.

Localities: Franconia, North Hampton, and Windham, N.H.; Ashby, Mass.; and Bound Brook, N.J.

Adults: April to May, and July to September.

Number per host: As many as nine.

Generations: Two or more.

Hibernation: As maggot in host larva.

## WAGNERIA SEQUAX WILL.

Hosts: *Polia adjuncta* Bois, *Graptolitha* sp., *Conistra devia* Grt., unidentified noctuid.

Localities: Hampden and Unity, Maine; Grafton, N.H.; Melrose and Saugus, Mass.; and Bound Brook and Somerville, N.J.

Adults: April to May, and July.

Number per host: From 2 to 11.

Generations: Two, sometimes only one.

Hibernation: In the puparium.

## WAGNERIA (?) VERNATA WEST.

Host: *Orthosia hibisci* Grt.

Locality: Melrose, Mass.

Adults: May.

Number per host: Not known. (Four adults reared from a bulk collection.)

Generation: One.

Hibernation: In the puparium.

## GONIA SAGAX TOWN.

Host: *Alsophila pometaria* Harr.

Locality: Somerville, N.J.

Adults: Late April to May.

Number per host: One.

Generations: One.

Hibernation: In the puparium.

## GONIA SP. (1)

Host: *Euxoa ochrogaster* † Guen.

Locality: Melrose, Mass.

Adults: April and May.

Number per host: One.

Generations: One.

Hibernation: In its puparium in dead host pupa from July until the next spring.

## GONIA SP. (2)

Host: *Graptolitha antennata* Walk.

Localities: Bernardsville and Hillsboro, N.J.

Adults: April and May.

Number per host: One.

Generations: One.

Hibernation: In the puparium.

## CHAETOGAEDIA ANALIS V.D.W.

Host: Unidentified arctiid.

Locality: Milford, N.H.

Adults: Late September (from host larva collected July 31).

Number per host: One.

Generations: Number not known.

Hibernation: Method not known.

## ARCHYTAS ATERRIMA DESV.

Hosts: *Cycnia tenera* Hbn., *Catocala neogama* S. and A., *Plathypena scabra* Fab., unidentified noctuid†.

Localities: Forest Hills and Melrose, Mass.; and South Brunswick and Somerville, N.J.

Adults: May, and July to September.

Number per host: One.

Generations: At least two.

Hibernation: As maggot in host larva.

## ARCHYTAS METALLICA DESV.

Hosts: *Datana ministra*‡ Dru., *D. angusii*‡ G. and R., *D. perspicua*‡ G. and R., *D. integerrima*‡ G. and R.

Localities: Westerly, R.I.; Hartford, Schenectady, and Venice, N.Y.; Blackwell's Mills, Blawenburg, Bound Brook, and Bridgewater, N.J.; and Delaware Water Gap, Pa.

Adults: July.

Number per host: One.

Generations: One.

Hibernation: As maggot in host pupa.

## ARCHYTAS SP., NEAR METALLICA DESV.

Host: *Catocala* sp.

Locality: Bound Brook, N.J.

Adults: June and August.

Number per host: One.

Generations: Two.

Hibernation: Method not known.

## EPALPUS SIGNIFERA WALK.

Host: *Graptolitha* sp.

Localities: Bridgewater and Hillsboro, N.J.

Adults: Late April to May.

Number per host: One or two.

Generations: One.

Hibernation: In the puparium.

## BOMBYLIOMYIA ABRUPTA WIED.

Hosts: *Halisidota caryae* Harr., *H. maculata* Harr., *H. tessellaris* S. and A., *Diacrisia virginica* Fab., *Hyphantria cunea* Dru., *Euchaetias egle* Dru., unidentified arctiid.

Localities: Bangor, Frenchville, Jackman, Kenduskeag, Van Buren, and others, in Maine; Claremont and Sunapee, N.H.; Hartford, Middlesex, and Milton, Vt.; Melrose, Mass.; and Ausable Forks, Carthage, and Oxford, N.Y.

Adults: June and July.

Number per host: One.

Generations: One.

Hibernation: In the puparium.

## THELAIRA LEUCOZONA PANZ.

Hosts: *Diacrisia virginica* Fab., *Estigmene acrea* Dru.

Localities: Ogunquit, Maine; Concord and Dover, N.H.; Lynnfield, Marion Melrose and Wakefield, Mass.; and Westerly, R.I.

Adults: June to September.

Number per host: One.

Generations: At least two.

Hibernation: Method not known.

## HYMENOPTERA

### FAMILY BRACONIDAE

#### SUBFAMILY ALEIODINAE

##### ROGAS HYPHANTRIAE GAH.

Host: *Hyphantria cunea* Dru.

Localities: Bangor, Brewer, Charleston, and Orrington, Maine.

Adults: June to September.

Number per host: One.

Generations: Two.

Hibernation: Method not known.

##### ROGAS QUEBECENSIS PROV.

Host: *Acronycta furcifera* Guen.

Localities: Lynnfield and Melrose, Mass.

Adults: May to June, and July to August.

Number per host: One.

Generations: Two.

Hibernation: In cocoon.

##### ROGAS STIGMATOR SAY

Hosts: *Acronycta superans* Guen., *A. americana* Harr., *A. dactylina* Grt., *A. impressa* Walk., *A. obliqua* S. and A., *Acronycta* sp., *Simyra henrici* Grt.

Localities: Bangor, Calais, Greenbush, Harrington, Lille, Orrington, Orono, Searsport, Topsfield and others, in Maine; Barre, Vt.; Revere, Mass.; and Antwerp, N.Y.

Adults: July to October.

Number per host: As many as 23.

Generations: Probably two.

Hibernation: Method not known.

##### ROGAS SP. (1)

Hosts: *Diacrisia virginica* Fab., *Estigmene acrea* Dru.

Localities: Melrose, Mass.; Iselin, N.J.; and Nicholson, Pa.

Adults: July and August.

Number per host: One.

Generations: At least two.

Hibernation: Method not known.

##### ROGAS SP. (2)

Host: *Malacosoma americana* Fab.

Localities: Claremont, N.H., and Bethel, Vt.

Adults: May, and late June to July.

Number per host: One.

Generations: At least two.

Hibernation: Method not known.

##### ROGAS SP. (3)

Host: *Alsophila pometaria* Harr.

Locality: Colchester, Vt.

Adults: May, and late June to July.

Number per host: One.

Generations: At least two.

Hibernation: Method not known.

## ROGAS SP. (4)

Host: *Phigalia titea* Cram.  
 Locality: Framingham, Mass.  
 Adults: June.  
 Number per host: One.  
 Generations: One.  
 Hibernation: In cocoon.

## SUBFAMILY MICROGASTERINAE

## MICROGASTER SCHIZURAE MUES.

Hosts: *Ianassa lignicolor* Walk., *Schizura concinna* S. and A.  
 Localities: Lee and Prospect, Maine, and Brunswick, N.J.  
 Adults: Late June to July.  
 Number per host: 6 to 12 (cocoons more or less in clusters).  
 Generations: One.  
 Hibernation: In cocoon.

## MICROGASTER SCOPELOSOMAE MUES.

Hosts: *Conistra devia* Grt., *Conistra* sp.  
 Localities: Ellsworth, Maine, and Melrose, Mass.  
 Adults: May and June.  
 Number per host: 8 to 12 (cocoons in masses).  
 Generations: One.  
 Hibernation: In cocoon.

## MICROGASTER SP.

Host: *Phigalia titea* Cram.  
 Locality: Westwood, Mass.  
 Adults: Late May.  
 Number per host: One.  
 Generations: Number not known.  
 Hibernation: Method not known.

## MICROPLITIS CERATOMIAE RILEY

Hosts: *Hyloicus kalmiae* S. and A., *H. gordius* Cram., *Paonias myops* S. and A., unidentified Sphingidae.  
 Localities: Eliot, Hancock, and Prospect, Maine; Melrose, Revere, and Wakefield, Mass.; Cumberland, R.I.; and Norwich, N.Y.  
 Adults: Late May to July, and September to October.  
 Number per host: Sometimes as many as 100.  
 Generations: One, and at least a partial second.  
 Hibernation: In cocoon.

## MICROPLITIS HYPHANTRIAE ASHM.

Host: *Acronycta impressa* Walk.  
 Locality: Orono, Maine.  
 Adults: July to August, and October.  
 Number per host: One.  
 Generations: At least two.  
 Hibernation: Method not known.

## MICROPLITIS KEWLEYI MUES.

Host: *Euxoa ochrogaster* Guen.  
 Locality: Bangor, Maine.  
 Adults: June and July.  
 Number per host: Several.  
 Generations: Possibly two.  
 Hibernation: Method not known.

## MICROPLITIS MAMESTRAE WEED.

Host: *Ceramica picta* Harr.  
 Localities: Carmel, Maine; Concord, N.H.; and Acton, Lynnfield, Melrose, and Sherborn, Mass.  
 Adults: Early June, and July to August.  
 Number per host: One.  
 Generations: Two.  
 Hibernation: In cocoon.

## MICROPLITIS, N.SP. (1)

Host: *Acronycta americana* Harr.  
 Localities: Saint John, Maine, and Smyrna, N.Y.  
 Adults: May (host larvae collected the previous August and September).  
 Number per host: One.  
 Generations: Possibly two.  
 Hibernation: In cocoon.

## MICROPLITIS, N.SP. (2)

Host: *Cucullia convexipennis* G. and R.  
 Localities: Exeter, Glenburn, and Harmony, Maine.  
 Adults: August to October.  
 Number per host: One.  
 Generations: At least two.  
 Hibernation: Method not known.

## MICROPLITIS, N.SP. (3)

Host: *Catocala antinympha* Hbn.  
 Locality: Melrose, Mass.  
 Adults: May and June.  
 Number per host: One.  
 Generations: One.  
 Hibernation: In cocoon.

## MICROPLITIS, N.SP. (4)

Host: Unidentified noctuid.  
 Locality: Cranberry Lake, N.Y.  
 Adults: July (from host larva collected in June).  
 Number per host: One.  
 Generations: Number not known.  
 Hibernation: Method not known.

## MICROPLITIS, N.SP., NEAR VARICOLOR VIER.

Host: *Graptolitha* sp.  
 Locality: Mason, N.H.  
 Adults: Late May to June.  
 Number per host: One.  
 Generations: One.  
 Hibernation: In cocoon.

## MICROPLITIS QUADRIDENTATUS PROV.

Host: *Simyra henrici* Grt.  
 Localities: Lynn and Revere, Mass.  
 Adults: July and August.  
 Number per host: One  
 Generations: Number not known.  
 Hibernation: Method not known.

## MICROPLITIS SP.

Host: *Graptolitha antennata* Walk.  
 Localities: Auburn, N.H.; and Essex, Vt.  
 Adults: April and May.  
 Number per host: One.  
 Generations: One.  
 Hibernation: In cocoon.

## APANTELES ACRONYCTAE RILEY

Host: *Acronycta lepusculina* Guen.

Locality: Mount Chase, Maine.

Adults: August to October.

Number per host: 22 (cocoons in a mass).

Generations: At least two.

Hibernation: Method not known.

## APANTELES AMMALONIS MUES.

Host: *Cycnia tenera* Hbn.

Localities: Bound Brook, Hillsboro, and Somerville, N.J.

Adults: July and August.

Number per host: From 15 to 20 (cocoons usually formed in the host cocoon).

Generations: One.

Hibernation: In cocoon.

## APANTELES ANISOTAE MUES.

Hosts: *Anisota stigma* Fab., *A. senatoria* S. and A., *A. rubicunda* Fab.

Localities: Westerly, R.I.; Putnam, Conn.; Elmira, N.Y.; and Branchburg New Brunswick, and Old Bridge, N.J.

Adults: Late June to July, September to October.

Number per host: From 6 to 33 (cocoons are free).

Generations: Two.

Hibernation: In cocoon.

## APANTELES ARGYNNIDIS RILEY

Host: *Epargyreus tityrus* Fab.

Localities: Many in Massachusetts, New York, and New Jersey.

Adults: July to November.

Number per host: From 40 to 65.

Generations: At least two.

Hibernation: In cocoon.

## APANTELES ATALANTAE PACK.

Hosts: *Hamadryas milberti* Godt., *Cynthia atlanta* L.

Localities: Many in Maine, Vermont, Massachusetts, Rhode Island, New York, and New Jersey.

Adults: May to June, and July to October.

Number per host: From 25 to 50 (cocoons in small compact masses).

Generations: Two or more.

Hibernation: In cocoon.

## APANTELES CERURAE MUES.

Host: *Cerura* sp.

Localities: Manchester, Conn.; and Warren, N.J.

Adults: June to July, and August.

Number per host: From 10 to 20.

Generations: At least two.

Hibernation: Method not known.

## APANTELES CHARADRAE MUES.

Host: *Charadra deridens* Guen.

Localities: North Adams, Mass.; and Pomfret, Conn.

Adults: June to July.

Number per host: Approximately 50 (cocoons massed in host cocoons).

Generations: One.

Hibernation: In cocoon.

## APANTELES CINGILIAE MUES.

Host: *Cingilia catenaria* Dru.

Localities: Bernardston, Deerfield, and Sherborn, Mass.

Adults: July to September.

Number per host: Unknown.  
 Generations: At least two.  
 Hibernation: Method not known.

#### APANTELES CLISIOCAMPAE ASHM.

Host: *Malacosoma americana* Fab.  
 Localities: Corinna, Maine.; Plymouth, N.H.; and Plainsboro and Skillman, N.J.  
 Adults: May to July.  
 Number per host: One.  
 Generations: At least two.  
 Hibernation: Method not known.

#### APANTELES CONGREGATUS SAY

Hosts: *Phlegethontius sexta* Johan., *P. quinquemaculata* Haw., *Ceratomia catalpae* Bois, *Hyloicus gordius* Cram., *Lapara bombycoides* Walk., *Paonias excaecata* S. and A., *P. myops* S. and A., *P. astylus* Dru., *Hemaris thysbe* Fab., *Pholus pandorus* Hbn., *Ampeloea myron* Cram., *Sphecodina abbottii* Swa., *Deidamia inscriptum* Harr., *Amphion nessus* Cram., unidentified Sphingidae.

Localities: Many in New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, and New Jersey.

Adults: May to June, and July to October.  
 Number per host: Many.  
 Generations: Two or more.  
 Hibernation: In cocoon.

#### APANTELES COXALIS MUES.

Host: *Acronycta obliqua* S. and A.  
 Locality: Manchester, Conn.  
 Adults: Issued July and August (from host collected early in July).  
 Number per host: As many as 35.  
 Generations: Two.  
 Hibernation: Method not known.

#### APANTELES DELICATUS HOW.

Host: *Hemerocampa leucostigma* S. and A.  
 Localities: Brooklyn, N.Y.; and Camden, Newark, and Trenton, N.J.  
 Adults: May to June, and late June to September.  
 Number per host: One.  
 Generations: Two.  
 Hibernation: In cocoon.

#### APANTELES DIACRISIAE GAH.

Host: Unidentified arctiid.  
 Locality: Plainfield, N.J.  
 Adults: August to September, and October.  
 Number per host: Approximately 50.  
 Generations: At least two.  
 Hibernation: Method not known.

#### APANTELES EDWARDSII RILEY

Hosts: *Hamadryas milberti* Godt., *Cynthia atlanta* L.  
 Localities: Ellsworth, Maine; Melrose and Saugus, Mass.; and Yalesville, Conn.  
 Adults: June to August.  
 Number per host: One.  
 Generations: At least two.  
 Hibernation: Method not known.

#### APANTELES EMPRETIAE VIER.

Host: *Lithacodes fasciola* H-S.  
 Locality: Revere, Mass.  
 Adults: July and August.  
 Number per host: Seven.

Generations: Number not known.

Hibernation: Method not known.

#### APANTELES EUCHAETIS ASHM.

Host: *Euchaetis egle* Dru.

Localities: Many in New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania.

Adults: June to August, and September.

Number per host: From 25 to 60. (Cocoons usually in host cocoon.)

Generations: One; sometimes a partial second brood from hosts collected in New Jersey.

Hibernation: In cocoon.

#### APANTELES EUPHYDRYIDIS MUES.

Host: *Lemonias harrisii* Scud.

Locality: Bridgewater, N.J.

Adults: July.

Number per host: Approximately 40.

Generations: One (?).

Hibernation: Method not known.

#### APANTELES FISKEI VIER.

Hosts: *Olene atomaria* Walk., *O. basiflava* Pack.

Localities: Alton, Guilford, and La Grange, Maine; and Boylston and Melrose, Mass.

Adults: August.

Number per host: Approximately 50.

Generations: One.

Hibernation: Immature larva in host larva.

#### APANTELES GLOMERATUS L.

Host: *Ascia rapae* L.

Localities: Many in New England, New York, and New Jersey.

Adults: May and June to October and November.

Number per host: Approximately 25.

Generations: At least two.

Hibernation: In cocoon.

#### APANTELES GORDII MUES.

Host: *Hyloicus gordius* Cram.

Localities: Bangor, Bar Harbor, Charleston, Old Town, Orono, and Orrington, Maine.

Adults: June to August.

Number per host: Many, sometimes 100.

Generations: One (?).

Hibernation: In cocoon.

#### APANTELES GRIFFINI VIER.

Hosts: *Euxoa ochrogaster* Guen., *Conistra* sp., unidentified Noctuidae.

Localities: Harwich, Hingham, and Melrose, Mass.

Adults: May to July.

Number per host: Approximately 50.

Generations: At least two.

Hibernation: Probably as immature larvae in host.

#### APANTELES HADENAE MUES.

Host: *Trachea turbulenta* Hbn.

Locality: Cranberry, N.J.

Adults: Late May to June (from hosts collected the previous September).

Number per host: Several.

Generations: Possibly two.

Hibernation: In cocoon.

## APANTELES HALISIDOTAE MUES.

Host: *Halisidota maculata* Harr.

Localities: Ashland, Fort Kent, Grand Isle, Hampden, Lille, Madawaska, Patten, Presque Isle, Searsport, Wallagrass, Winterport, and others in Maine; Barre, Vt.; Cheshire, Mass.; and Boonville, Chateaugay, Dryden, Hopkinton, Jordan, and Nicholville, N.Y.

Adults: Late May to July, and September to October.

Number per host: Approximately 25. (The cocoons usually formed in cocoon of host.)

Generations: One; sometimes a partial second.

Hibernation: In cocoon.

## APANTELES HEMILEUCAE RILEY

Host: *Hemileuca maia* Dru. or *lucina* Hy. Edw.

Localities: Townsend, Mass., and Islip, N.Y.

Adults: June to July.

Number per host: Many. (Cocoons not in a mass, but formed singly on body of host.)

Generations: Apparently two.

Hibernation: Method not known.

## APANTELES HESPERIDIVORUS VIER.

Host: *Erynnis* sp.

Locality: Melrose, Mass.

Adults: July and August.

Number per host: Approximately 25.

Generations: Probably two (?).

Hibernation: Method not known.

## APANTELES HYDRIAE MUES.

Host: *Calocalpe undulata* L.

Localities: Many in New England, New York, New Jersey, and Pennsylvania.

Adults: May to June, and July to October.

Number per host: Three to eight. (Cocoons are usually separated.)

Generations: At least two.

Hibernation: In cocoon.

## APANTELES HYPHANTRIAE RILEY

Host: *Hyphantria cunea* Dru.

Localities: Many in New England, New York, and New Jersey.

Adults: June to October.

Number per host: One.

Generations: Probably two.

Hibernation: Method not known.

## APANTELES LIMENITIDIS RILEY

Host: *Basilarchia archippus* Cram.

Localities: Ayer, Bedford, Fitchburg, Melrose, and Sherborn, Mass.; Yalesville, Conn.; and Raritan and Somerville, N.J.

Adults: May to September.

Number per host: One.

Generations: Two or more.

Hibernation: Method not known.

## APANTELES LONGICORNIS PROV.

Host: Unidentified noctuid.

Locality: Melrose, Mass.

Adults: Late July to August (from host collected July 2).

Number per host: Approximately 50.

Generations: Probably two.

Hibernation: Method not known.

## APANTELES LUNATUS PACK.

Host: *Lemonias harrisii* Scud.

Locality: Reading, Mass.

Adults: Late June to July (from hosts collected June 10).

Number per host: One.

Generations: Number not known.

Hibernation: Method not known.

## APANTELES LYCIAE MUES.

Host: *Amphidasis cognataria* Guen.

Localities: Bangor, Ellsworth, Hampden, La Grange, Newport, Stockton, and Winterport, Maine.

Adults: June to July and August to October.

Number per host: From 6 to 24.

Generations: Two.

Hibernation: In cocoon.

## APANTELES MELANOSCELUS RATZ.

Hosts: *Hemerocampa leucostigma* S. and A., *Porthetria dispar* L., *Stilpnobia salicis* L.

Localities: Many in Maine, New Hampshire, Massachusetts, and Rhode Island.

Adults: May and June to July.

Number per host: One.

Generations: Two.

Hibernation: In cocoon.

## APANTELES MILITARIS WALSH

Host: *Cirphis unipuncta* Haw.

Localities: Walpole and Worcester, Mass.

Adults: June, July, August.

Number per host: Approximately 25.

Generations: Probably two.

Hibernation: Method not known.

## APANTELES MURTFELDTAE ASHM.

Hosts: *Amphidasis cognataria* Guen., *Phigalia titea* Cram., *Sabulodes transversata* Dru., unidentified Geometridae.

Localities: Claremont and Temple, N. H.; Sharon, Vt.; and Lunenburg and Melrose, Mass.

Adults: May to August.

Number per host: From 6 to 17.

Generations: At least two.

Hibernation: In cocoon.

## APANTELES NEMORIAE ASHM.

Hosts: *Alsophila pomaria* Harr., *Erannis tiliaria* Harr., *Cingilia catenaria* Dru.

Localities: Hermon, Maine; Enfield, N.H.; Sherborn, Mass.; and Austerlitz, N.Y.

Adults: May to June and July to August.

Number per host: One.

Generations: Two, possibly three.

Hibernation: Method not known.

## APANTELES NIGRICORNIS MUES.

Host: *Ctenucha virginica* Charp.

Localities: Burnham, Detroit, Dover-Foxcroft, Glenburn, Hampden, Hermon, Orrington, Orono, and Unity, Maine; and Dover and Moretown, Vt.

Adults: July and August.

Number per host: Approximately 40.

Generations: One.

Hibernation: As immature larvae in host larva.

#### APANTELES NOCTUIDIPHAGUS MUES.

Host: Unidentified noctuid.

Locality: Stonington, Conn.

Adults: May (from cocoons formed in October).

Number per host: Several.

Generations: Number not known.

Hibernation: In cocoon.

#### APANTELES PALEACRITAE RILEY

Hosts: *Alsophila pometaria* Harr., *Calocalpe undulata* L.

Localities: Claremont, N.H.; Colchester and Ryegate, Vt.; and Bernardsville and Mendham, N.J.

Adults: May and June, July.

Number per host: One.

Generations: At least two.

Hibernation: Method not known.

#### APANTELES PHIGALIAE MUES.

Host: *Phigalia tita*e Cram.

Localities: Melrose, Mass., and Mendham, N.J.

Adults: June.

Number per host: Usually from 3 to 6.

Generations: One.

Hibernation: In cocoon.

#### APANTELES PHOBETRI ROH.

Hosts: *Halisidota tessellaris* S. and A., *H. harrisii* Walsh, *Hemerocampa leucostigma* S. and A.

Localities: Charlestown and Claremont, N.H.; Charlotte and Whiting, Vt.; Arlington, Barnstable, Boylston, Fitchburg, Haverhill, Oakham, and Wakefield, Mass.; Newport, R.I.; and Asbury Park, Bound Brook, Camden, Deal Beach, Hillsboro, and West Long Branch, N.J.

Adults: June to July and August to September.

Number per host: From 9 to 20.

Generations: Two.

Hibernation: In cocoon.

#### APANTELES PYROPHILAE MUES.

Host: *Amphipyra pyramidoides* Guen.

Locality: Westerly, R.I.

Adults: July (from larvae collected in June).

Number per host: Several.

Generations: At least two.

Hibernation: Method not known.

#### APANTELES SARROTHRIPAE WEED.

Hosts: *Melalopha inclusa* Hbn., *M. strigosa* Grt., *M. albosigma* Fitch.

Localities: West Forks, Maine; Melrose, Mass.; Westerly, R.I.; Putnam, Conn.; Elmira, N.Y.; and Bound Brook, Cranbury, Flemington, Hillsboro, Metuchen, Neshanic, Old Bridge, Warren, and Whitehouse, N.J.

Adults: July to October.

Number per host: Approximately 35.

Generations: At least two.

Hibernation: Method not known.

#### APANTELES SCHAFFNERI MUES.

Host: Unidentified Cochliidae.

Localities: Roycefield, N.J., and Raubsville, Pa.

Adults: July to August, and August to September.

Number per host: From 4 to 20.

Generations: At least two.

Hibernation: Method not known.

#### APANTELES SCHIZURAE ASHM.

Hosts: *Schizura badia* Pack., *S. unicornis* S. and A.

Localities: Lawrence, Mass.; Manchester, Conn.; and Rosendale, N.Y.

Adults: Late May to June and September. (Cocoons from one host larva produced adults both in September and late May of next year.)

Number per host: Approximately 35.

Generations: One, with at least a partial second.

Hibernation: In cocoons.

#### APANTELES SMERINTHI RILEY

Hosts: *Ceratomia undulosa* Walk., *Smerinthus geminatus* Say, *Paonias excaecata* S. and A., *Deidamia inscriptum* Harr., unidentified sphingid.

Localities: Frankfort, Greenville, Monson, Prospect, Stream, and Van Buren, Maine; Lynnfield, Melrose, and Wakefield, Mass.; and Somerville, N.J.

Adults: May and June to October.

Number per host: Many.

Generations: At least two.

Hibernation: In cocoon.

#### APANTELES TELEAE MUES.

Host: *Telea polyphemus* Cram.

Locality: Bucksport, Maine.

Adults: June.

Number per host: Many.

Generations: One.

Hibernation: In cocoon.

#### APANTELES, N. SP. (1)

Host: *Euphydryas phaeton* Dru.

Locality: Bradford, Maine.

Adults: Late May to June (from host larvae collected the previous September).

Number per host: One.

Generations: Number not known.

Hibernation: As larva in host larva.

#### APANTELES, N. SP. (2)

Host: *Hyloicus canadensis* BdV.

Locality: Hudson, Maine.

Adults: June (from host collected the previous September).

Number per host: Many.

Generations: Number not known.

Hibernation: In cocoon (similar to *A. congregatus*).

#### APANTELES, N. SP., NEAR GLOMERATUS L.

Host: *Amphipyra pyramidoides* Guen.

Localities: Westwood, Mass., and Garrison, N.Y.

Adults: May and June.

Number per host: Many (cocoons in a mass).

Generations: At least two.

Hibernation: Method not known.

#### APANTELES, N. SP. (3)

Host: *Hyperaeschra stragula* Grt.

Locality: Alton, Maine.

Adults: June (from host collected the previous September).

Number per host: Approximately 30.

Generations: Number not known.

Hibernation: In cocoon.

## APANTELES, N. SP., NEAR CERURAE MUES.

Host: *Pheosia rimosa* Pack.

Localities: Jackman, Kenduskeag, and Parlin Pond, Maine.

Adults: Late May to June (from hosts collected the previous September).

Number per host: As many as 18. (Cocoons are free.)

Generations: Number not known.

Hibernation: In cocoon.

## APANTELES, N. SP. (4)

Host: *Epicnaptera americana* Harr.

Locality: Ayer, Mass.

Adults: July (from host collected in June).

Number per host: Approximately 10.

Generations: At least two.

Hibernation: Method not known.

## APANTELES, N. SP., NEAR COMPRESSUS MUES.

Host: *Elloptia fiscellaria* Guen.

Locality: Redwood, N.Y.

Adults: Late May to June (from hosts collected the previous August).

Number per host: One.

Generations: Number not known.

Hibernation: In cocoon.

## APANTELES, N. SP. (5)

Host: Unidentified geometrid.

Locality: Cheshire, Mass.

Adults: May and June (from host collected the previous September).

Number per host: 8 cocoons.

Generations: Number not known.

Hibernation: In cocoons.

## APANTELES SP.

Host: *Polia adjuncta* Bdv.

Localities: Lynnfield, Mass., and Wapping, Conn.

Adults: None issued.

Number per host: Several.

## SUBFAMILY MACROCENTRINAE

## MACROCENTRUS UNIFORMIS PROV.

Host: *Alypia octomaculata* Fab.

Locality: Brockport, N.Y.

Adults: Late June (from hosts collected previous August).

Number per host: One.

Generations: One.

Hibernation: In cocoon.

## SUBFAMILY METEORINAE

## METEORUS BAKERI C. AND D.

Host: *Hyphantria cunea* Dru.

Localities: Bristol, Vt.; Coventry and Westerly, R.I.; and Putnam, Conn.

Adults: July to September.

Number per host: One.

Generations: At least two.

Hibernation: Method not known.

## METEORUS CINGILIAE MUES.

Host: *Cingilia catenaria* Dru.

Localities: Amherst, N.H.; Bernardston, Brewster, Lancaster, Newbury, Sherborn, and Sudbury, Mass.; Westerly, R.I.; and Rome, N.Y.

Adults: Late May to September.

Number per host: One.

Generations: At least two.

Hibernation: Method not known.

## METEORUS COMMUNIS CRESS.

Hosts: *Orthosia hibisci* Grt., *Cirphis unipuncta* † Haw., *Graptolitha* sp., *Malacosoma americana* Fab.

Localities: Lynnfield, Melrose, and Winchester, Mass.; Jackson, R.I.; Putnam, Conn.; and Bound Brook, N.J.

Adults: May to June, and June to July.

Number per host: One.

Generations: At least two.

Hibernation: As larva in host larva.

## METEORUS DATANAE MUES.

Hosts: *Datana angusii* G. and R., *D. integerrima* G. and R., *Malacosoma disstria* Hbn.

Localities: Bound Brook, Branchburg, Princeton, and South Brunswick, N.J.

Adults: May to October.

Number per host: One.

Generations: Probably three.

Hibernation: Method not known.

## METEORUS HYPHANTRIAE RILEY

Hosts: *Polygonia interrogationis* Fab., *Cynthia atlanta* L., *Hyphantria cunea* Dru., *Euchaetias egle* Dru., *Graptolitha* sp., *G. antennata* Walk., *Catocala neogama* S. and A., *Calpe canadensis* Beth., *Datana perspicua* G. and R., *Schizura unicornis* S. and A., *Notolophus antiqua* L., *Hemerocampa leucostigma* S. and A., *Malacosoma americana* Fab., *M. disstria* Hbn., *Itame ribearia* Fitch, and *Phigalia titea* Cram.

Localities: Many in New England, New York, New Jersey, and Pennsylvania.

Adults: May to October, and November.

Number per host: One.

Generations: Two, or possibly three, especially in southern part of area covered.

Hibernation: Method not known.

## METEORUS NIVEITARSIS CRESS.

Host: *Graptolitha* sp.

Locality: Bridgewater, N.J.

Adults: Late May.

Number per host: One.

Generations: One.

Hibernation: In cocoon.

## METEORUS VERSICOLOR WESM.

Hosts: *Hyphantria cunea* Dru., *Notolophus antiqua* L., *Hemerocampa leucostigma* S. and A., *Nygma phaeorrhoea* † Don.

Localities: Many in Maine, New Hampshire, and Massachusetts.

Adults: June, and August to September.

Number per host: One.

Generations: Two, sometimes a partial third.

Hibernation: As immature larva in larva of *N. phaeorrhoea*.

## METEORUS VULGARIS CRESS.

Hosts: *Noctua fennica* † Tausch, *Graptolitha* sp., *G. antennata* Walk., *Conistra* sp., *Sidemia devastator* † Brace, unidentified Noctuidae. †

Localities: Many in Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, New York, and New Jersey.

Adults: May to August.

Number per host: As many as 31.

Generations: At least two.

Hibernation: As immature larva in host larva.

## METEORUS, N. SP.

Hosts: *Calpe canadensis* Beth., *Alsophila pometaria* Harr.

Localities: Hampton, N.H.; Melrose, Mass.; and Mendham, N.J.

Adults: May to June, and July.

Number per host: One  
 Generations: At least two.  
 Hibernation: Method not known.

#### METEORUS SP.

Host: *Estigmene acrea* Dru.  
 Locality: Dover, Mass.  
 Adults: None issued (cocoon only obtained.)  
 Number per host: One.

### FAMILY ICHNEUMONIDAE

#### SUBFAMILY JOPPINAE

##### TRIBE JOPPINI

#### PSILOMASTAX VULPINUS GRAV.

Hosts: *Papilio ajax* L., *P. glaucus turnus* L., *P. troilus* L.  
 Localities: Many in Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, and New Jersey.  
 Adults: May to June, and July to October.  
 Number per host: One.  
 Generations: Two.  
 Hibernation: In host chrysalis.

#### TROGUS APICALIS CRESS.

Host: *Hyloicus kalmiae* S. and A.  
 Locality: Lunenburg, Mass.  
 Adults: June and July.  
 Number per host: One  
 Generations: One.  
 Hibernation: In host pupa.

#### TROGUS BRULLEI CRESS.

Host: *Paonias myops* S. and A.  
 Locality: Revere, Mass.  
 Adults: June and July.  
 Number per host: One.  
 Generations: One.  
 Hibernation: In host pupa.

#### TROGUS CANADENSIS PROV.

Hosts: *Paonias myops* S. and A., unidentified sphingid.  
 Localities: Stetson, Maine; Melrose and Revere, Mass.; and Morristown, N.J.  
 Adults: June and July.  
 Number per host: One.  
 Generations: One.  
 Hibernation: In host pupa.

#### TROGUS FULVIPES CRESS.

Host: *Papilio turnus* L.  
 Localities: Bradley, Exeter, Hampden, Jackman, La Grange, and Moose River, Maine; Waitsfield, Vt.; Westerly, R.I.; and Duane and Taberg, N.Y.  
 Adults: June and July.  
 Number per host: One.  
 Generations: One.  
 Hibernation: In host chrysalis.

#### TROGUS NUBILIPENNIS HALD.

Host: *Sphecodina abbottii* Swains.  
 Locality: Medfield, Mass.  
 Adults: September (host larvae collected the previous July).  
 Number per host: One.  
 Generations: Apparently two.  
 Hibernation: Method not known.

## TRIBE AMBLYTELINI

## AMBLYTELES BREVICINCTOR SAY

Host: *Hyphantria cunea* Dru.

Locality: Roycefield, N.J.

Adults: May (host larvae collected previous September).

Number per host: One.

Generations: Apparently two.

Hibernation: In host pupa.

## AMBLYTELES CALIGINOSUS CRESS.

Hosts: *Polygonia interrogationis* Fab., *Cynthia atlanta* L.

Localities: Dorchester, Melrose, Sherborn, and Wakefield, Mass.; Westerly, R.I.; Truxton, N.Y.; and Hillsboro, Manville, Piscataway, and Somerville, N.J.

Adults: July to September.

Number per host: One.

Generations: At least two.

Hibernation: Method not known.

## AMBLYTELES CENTRATOR SAY

Hosts: *Isia isabella* S. and A., unidentified arctiid.

Localities: Kittery, Maine, and Winchester, Mass.

Adults: June to July, and fall to spring.

Number per host: One.

Generations: Probably two.

Hibernation: As adult.

## AMBLYTELES SP., NEAR CENTRATOR SAY

Host: *Amphion nessus* Cram.

Locality: Concord, N.H.

Adults: June.

Number per host: One.

Generations: One.

Hibernation: In host pupa.

## AMBLYTELES CINCTICORNIS CRESS.

Host: *Autographa brassicae* Riley.

Localities: Hingham, Mass.; and Bound Brook, Cranbury, and South Brunswick, N.J.

Adults: September until spring.

Number per host: One.

Generations: Probably two.

Hibernation: As adult.

## AMBLYTELES CTENUCHAE CUSH.

Host: *Ctenucha virginica* Charp.

Locality: Detroit, Maine.

Adults: Late July and August (from hosts collected early in July).

Number per host: One.

Generations: Probably two.

Hibernation: Method not known.

## AMBLYTELES LAETUS BRULLÉ.

Host: Unidentified noctuid.

Locality: Holden, Mass.

Adults: June to September.

Number per host: One.

Generations: At least two.

Hibernation: Method not known.

## AMBLYTELES PROPITIUS CRESS.

Host: *Lemonias harrisii* Scud.

Locality: Deering, N.H.

Adults: June and July.

Number per host: One.

Generations: Probably two.

Hibernation: Method not known.

#### AMBLYTELES PULLATUS CRESS.

Host: *Hyphantria cunea* Dru.

Localities: Reading, Mass., and Roycefield, N.J.

Adults: May and August.

Number per host: One.

Generations: Two.

Hibernation: In host pupa.

#### AMBLYTELES RUFIVENTRIS BRULLÉ

Hosts: *Polygonia comma* Harr., *Cynthia virginiensis* Dru., *C. cardui* L., unidentified nymphalid.

Localities: La Grange, Maine; Lynnfield and Melrose, Mass.; Lowville, Messengerville, and Patchogue, N.Y.; Blackwell's Mills, Bound Brook, Branchburg, Princeton, Somerville, and South Brunswick, N.J.; and Dalesville and Moscow, Pa.

Adults: June to late September.

Number per host: One.

Generations: Probably two.

Hibernation: Method not known.

#### AMBLYTELES SUBLATUS CRESS.

Host: *Heterocampa guttivitta* Walk.

Localities: Madison and Tamworth, N.H.; and Charlemont and Hawley, Mass.

Adults: June.

Number per host: One.

Generations: One.

Hibernation: In host pupa.

#### AMBLYTELES UNIFASCIATORIUS SAY

Hosts: *Halisidota tessellaris* S. and A., *Hemerocampa leucostigma* S. and A.

Localities: Alton, Maine, and Edgemont, N.H.

Adults: August to October and possibly until spring.

Number per host: One.

Generations: Two.

Hibernation: Possibly as adult.

#### AMBLYTELES VERSABILIS CRESS.

Host: *Euphydryas phaeton* Dru.

Localities: Canton and Reading, Mass.

Adults: June and July (host larvae collected in May and early June).

Number per host: One.

Generations: Probably two.

Hibernation: Method not known.

#### AMBLYTELES SP. NEAR VERSABILIS CRESS.

Host: *Cynthia atlanta* L.

Locality: Saugus, Mass.

Adults: May to June, and July.

Number per host: One.

Generations: Probably two.

Hibernation: Method not known.

#### AMBLYTELES VIOLA CRESS.

Host: Unidentified *Catocala*.

Locality: Wilmington, Mass.

Adults: June to July, and August.

Number per host: One.

Generations: Probably two.

Hibernation: Method not known.

## HOPLISMENUS MORULUS SAY

Host: *Polygonia interrogationis* Fab.  
 Locality: Bangor, Maine.  
 Adults: July and September.  
 Number per host: One.  
 Generations: At least two.  
 Hibernation: Method not known.

## SUBFAMILY CRYPTINAE

## TRIBE HEMITELINI

## ALLOCOTA THYRIDOPTERIGIS RILEY

Host: *Thyridopteryx ephemeraeformis* Haw.  
 Locality: Trenton, N.J.  
 Adults: July and August.  
 Number per host: One.  
 Generations: Two, possibly more.  
 Hibernation: Method not known.

## TRIBE CRYPTINI

## SPILOCRYPTUS EXTREMATIS CRESS.

Hosts: *Platysamia cecropia* L., *Telea polyphemus* Cram.  
 Localities: Brewer and Orrington, Maine; Plymouth, N.H.; Northfield, Vt.; Milford, Conn.; and Somerville, N.J.  
 Adults: June and July.  
 Number per host: As many as 32.  
 Generations: One.  
 Hibernation: In the host cocoon.

## SPILOCRYPTUS NUNCIUS SAY

Host: *Callosamia promethea* Dru.  
 Localities: Claremont, Richmond, and Westmoreland, N.H.; Brattleboro, Vt.; Chelmsford, Mass.; Cranston, Providence, and Westerly, R.I.; Milford, New Haven, Orange, and Oxford, Conn.; and Brunswick, Madison, Rutherford, Sayreville, and Somerville, N.J.  
 Adults: July and August.  
 Number per host: As many as 20.  
 Generations: One.  
 Hibernation: In cocoon in the host cocoon.

## CHROMOCRYPTUS NEBRASKENSIS ASHM.

Host: *Epicnaptera americana* Harr.  
 Localities: Boxford, Mass.; and Lisbon and Windham, Conn.  
 Adults: June and July.  
 Number per host: As many as 22.  
 Generations: One.  
 Hibernation: In the host cocoon.

## SUBFAMILY ICHNEUMONINAE

## TRIBE LISSONOTINI

## LISSONOTA AMERICANA CRESS.

Host: Unidentified noctuid.  
 Locality: Barre, Vt.  
 Adults: August (from host collected the previous June.)  
 Number per host: One.  
 Generations: Number not known.  
 Hibernation: Method not known.

## TRIBE GLYPTINI

## GLYPTA ERRATICA CRESS.

Host: *Hemileuca maia* Dru. or *lucina* Hy. Edw.

Locality: Townsend, Mass.

Adults: June, and July to August.

Number per host: One.

Generations: Number not known.

Hibernation: Method not known.

## GLYPTA SIMPLICIPES CRESS.

Hosts: *Hemileuca maia* Dru., or *lucina* Hy. Edw. *Malacosoma americana* Fab., *Ennomos subsignarius* Hbn.

Localities: Bath, Maine; Northfield, Vt.; and Bedford and Townsend, Mass.

Adults: June, and July to August.

Number per host: One.

Generations: Two, possibly more.

Hibernation: Method not known.

## TRIBE EPHIALTINI

## EPHIALTES AEQUALIS PROV.

Host: *Eurycyrtarus confederata* G. and R.

Localities: Plainfield and Somerville, N.J.

Adults: May and June.

Number per host: One.

Generations: At least two.

Hibernation: Method not known.

## EPHIALTES PEDALIS CRESS.

Hosts: *Halisidota* † sp., *Heterocampa guttivitta* Walk., *Hemerocampa leucostigma* S. and A., *Malacosoma americana* Fab.

Localities: Hampden and Orono, Maine; Tamworth and Conway, N.H.; White Face, Vt.; Arlington, Gardner, and Melrose, Mass.; and Mansfield, Conn.

Adults: May to August.

Number per host: One.

Generations: Two, possibly more.

Hibernation: In host pupa.

## EPHIALTES (ITOPLECTIS) CONQUISITOR SAY

Hosts: *Hamadryas antiopa* L., *Cynthia cardui* L., *Hemileuca maia* Dru. or *lucina* Hy. Edw. *Hyphantria cunea* Dru., *Notolophus antiqua* L., *Hemerocampa leucostigma* S. and A., *Malacosoma americana* Fab., *M. disstria* Hbn., *Cingilia catenaria* Dru., *Ennomos subsignarius* Hbn., *Thyridopteryx ephemeraeformis* Haw.

Localities: Many in Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania.

Adults: May to October.

Number per host: One.

Generations: Two or more.

Hibernation: In host pupa.

## APECHTHIS PICTICORNIS CRESS.

Host: *Ennomos subsignarius* Hbn.

Localities: Bedford and Northboro, Mass.

Adults: June, and July to August.

Number per host: One.

Generations: At least two.

Hibernation: Method not known.

## TRIBE ICHNEUMONINI

## ISEROPUS COELEBS WALSH

Hosts: *Halisidota caryae* Harr, *Halisidota* sp., *Hemerocampa leucostigma* S. and A., *H. definita* Pack.

Localities: Hampden, Maine; Claremont, N.H.; Everett, Mass.; Westerly, R.I.; Brooklyn, N.Y.; and Camden and Trenton, N.J.

Adults: May to June, and July to October.

Number per host: As many as 7.

Generations: Two, possibly more.

Hibernation: In cocoon in the host cocoon.

## EPIURUS NIGRIFRONS VIER.

Hosts: *Halisidota tessellaris* ‡S. and A., *Hemerocampa leucostigma* S. and A.

Localities: Claremont, N.H., and Camden and Trenton, N.J.

Adults: June to September.

Number per host: One.

Generations: At least two.

Hibernation: In host pupa.

## SUBFAMILY TRYPHONINAE

## TRIBE PANISCINI

## PANISCUS GEMINATUS SAY

Host: *Alypia octomaculata* Fab.

Locality: Concord, N.H.

Adults: June.

Number per host: One

Generations: One.

Hibernation: In the cocoon.

## PANISCUS GEMINATUS SAYI CUSH.

Hosts: *Graptolitha antennata* Walk., *Graptolitha* sp., *Conistra indirecta* Walk.

Localities: Norwood and Weymouth, Mass.; and Bound Brook, Bridgewater, and Pluckemin, N.J.

Adults: Late May to June, and July to August.

Number per host: One.

Generations: Apparently one in New England with at least a partial second in New Jersey.

Hibernation: In the cocoon.

## PANISCUS PALLENS CUSH.

Host: *Melipotis jucunda* Hbn.

Locality: Elizabeth, N.J.

Adults: July, and August to September.

Number per host: One.

Generations: At least two.

Hibernation: Method not known.

## PANISCUS UNGUICULARIS CUSH.

Host: *Halisidota tessellaris* S. and A.

Locality: Philadelphia, Pa.

Adults: June to August (issued in the middle of August from hosts collected early in July).

Number per host: One.

Generations: At least two.

Hibernation: Method not known.

## PARABATES CRISTATOIDES CUSH.

Host: *Polia legitima* Grt.

Localities: Hancock and Stetson, Maine.

Adults: May (hosts were collected the previous September).

Number per host: Three or four.

Generations: Possibly two.  
Hibernation: In the cocoon.

#### PARABATES SMITHI CUSH.

Host: *Parallelia bistriaris* Hbn.  
Locality: North Adams, Mass.  
Adults: June.  
Number per host: One  
Generations: One.  
Hibernation: In the cocoon.

#### TRIBE METOPIINI

##### METOPIUS POLLINCTORIUS SAY

Host: *Acronycta obliqua* S. and A.  
Locality: Hudson, Maine.  
Adults: July.  
Number per host: One  
Generations: One.  
Hibernation: In the host pupa.

#### SUBFAMILY OPHIONINAE

##### TRIBE OPHIONINI

##### ENICOSPILUS PURGATUS SAY

Host: *Ceramica picta* Harr.  
Locality: Nantucket, Mass.  
Adults: July and August.  
Number per host: One.  
Generations: One (?).  
Hibernation: In the cocoon.

##### ENICOSPILUS PURGATUS ARCUATUS FELT.

Hosts: *Heterocampa guttivitta* Walk., *Schizura concinna* S. and A.  
Localities: Bangor, Bucksport, Castine, Cherryfield, Glenburn, Hampden, and Hermon, Maine; Tamworth, N.H.; Revere and Webster, Mass.; Paucatuck and Putnam, Conn.; and Cazenovia, Chazy, DeKalb, Parish, and Saranac, N.Y.  
Adults: June and July.  
Number per host: One.  
Generations: One.  
Hibernation: In the cocoon.

##### EREMOTYLUS MACRURUS L.

Hosts: *Samia walkeri advena* Pack., *Platysamia cecropia* L., *Callosamia promethea* Dru., *Actias luna* L., *Telea polyphemus* Cram., *Automeris io* Fab., *Acronycta sp.*

Localities: Many in Maine, New Hampshire, Vermont, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania.  
Adults: June to August.  
Number per host: One.  
Generations: One.  
Hibernation: In cocoon in host cocoon.

##### EREMOTYLUS, N. SP.

Hosts: *Malacosoma americana* Fab., *M. disstria* Hbn.  
Localities: Falmouth and Provincetown, Mass; and Bridgewater, Cranbury, and Readington, N.J.  
Adults: June and July.  
Number per host: One.  
Generations: One.  
Hibernation: In cocoon.

## OPHION SP. (1)

Hosts: *Halisidota carya* Harr., *H. tessellaris* S. and A.  
 Localities: Frankfort, Maine; Woodbury, Conn.; and Stone Ridge, N.Y.  
 Adults: Late July to early September.  
 Number per host.: One.  
 Generations: One.  
 Hibernation: In cocoon.

## OPHION SP. (2)

Host: *Catocala relicta* Walk.  
 Locality: Melrose, Mass.  
 Adults: Late May to June.  
 Number per host: One.  
 Generations: One.  
 Hibernation: In cocoon.

## OPHION SP. (3)

Host: *Graptolitha* sp.  
 Locality: Hillsboro, N.J.  
 Adults: June.  
 Number per host: One.  
 Generations: One.  
 Hibernation: In cocoon.

## TRIBE THERIONINI

## HABRONYX SP.

Hosts: *Anisota senatoria* † S. and A., *A. rubicunda* Fab.  
 Localities: Alexandria Bay, N.Y.; and Bridgewater, N.J.  
 Adults: July, and September to October.  
 Number per host: One.  
 Generations: Apparently 2 in New Jersey, but only 1 in northern New York.  
 Hibernation: In host pupa.

## HETEROPELMA DATANAE RILEY

Host: *Datana integerrima* G. and R.  
 Localities: Blackwell's Mills, Bound Brook, Finesville, Freehold, Hainesville, Manville, Metuchen, Pleasantdale, and Whitehouse, N.J.; and Portland and Raubsville, Pa.  
 Adults: July to August.  
 Number per host: One.  
 Generations: One.  
 Hibernation: In host pupa.

## HETEROPELMA FLAVICORNE BRULLÉ

Hosts: *Datana ministra* Dru., *D. perspicua* G. and R., *D. integerrima* G. and R., *D. contracta* Walk.  
 Localities: Bangor and Danforth, Maine; Westerly, R.I.; Mooers, Reynoldsburg, and Rouses Point, N.Y.; and Barley Sheaf, Blackwell's Mills, Bound Brook, Branchburg, Bridgewater, Roycefield, Somerville, and Trenton, N.J.  
 Adults: July and August.  
 Number per host: One.  
 Generations: One.  
 Hibernation: In host pupa.

## LABRORYCHUS ANALIS SAY

Hosts: *Cycnia tenera* Hbn., *Melalopha inclusa* † Hbn., *Hemerocampa leucostigma* S. and A., *Malacosoma americana* Fab., *M. disstria* Hbn.  
 Localities: Many in New England, New York, and New Jersey.  
 Adults: May to July, and July to October.  
 Number per host: One.  
 Generations: Two.  
 Hibernation: In host pupa.

## LABRORYCHUS ELONGATUS DAVIS

Host: *Halisidota maculata* Harr.

Localities: Bangor, Burnham, Frenchville, Grand Isle, Harrington, Houlton, Kenduskeag, Kingsbury, Madawaska, Masardis, Van Buren, and Wallagrass, Maine.

Adults: July and August.

Number per host: One.

Generations: One.

Hibernation: In host pupa.

## LABRORYCHUS RELICTUS NORT.

Hosts: *Datana ministra* Dru., *D. integerrima* G. and R.

Localities: Charleston and Hermon, Maine; Dryden, Mooers, Rouses Point, Venice, and Watertown, N.Y.; Barley Sheaf, N.J.; and Halstead, Pa.

Adults: July and August.

Number per host: One.

Generations: One.

Hibernation: In host pupa.

## LABRORYCHUS SP. (1)

Hosts: *Ctenucha virginica* Charp.

Localities: Bangor and Orono, Maine.

Adults: Late June to July (from hosts collected the previous May).

Number per host: One.

Generations: Number not known.

Hibernation: Method not known.

## LABRORYCHUS SP. (2)

Host: *Hyphantria cunea* Dru.

Locality: Chelmsford, Mass.

Adults: Late May to June (from hosts collected the previous September).

Number per host: One.

Generations: Probably two(?).

Hibernation: In host pupa.

## LABRORYCHUS SP. (3)

Host: *Trachea turbulenta* Hbn.

Locality: Essex, Mass.

Adults: July and August.

Number per host: One.

Generations: One.

Hibernation: In host pupa.

## LABRORYCHUS SP. (4)

Host: *Parallelia bistriaris* Hbn.

Locality: North Adams, Mass.

Adults: June.

Number per host: One.

Generations: One.

Hibernation: In host pupa.

## LABRORYCHUS P. (5)

Host: *Calocalpe undulata* L.

Locality: Marion, Mass.

Adults: July.

Number per host: One.

Generations: One.

Hibernation: In host pupa.

## APHANISTES HYALINUS NORT.

Host: *Trachea turbulenta* Hbn.

Localities: Essex, Falmouth, and Rockport, Mass.; and Westerly, R.I.

Adults: July and August.

Number per host: One.

Generations: One.

Hibernation: In host pupa.

## APHANISTES NIGRORUFUS NORT.

Hosts: *Halisidota caryaef* Harr.; *Schizura concinna* S. and A.

Localities: Alburgh, Vt., and Bridgewater, N.J.

Adults: July and August.

Number per host: One.

Generations: One.

Hibernation: In host pupa or prepupal larva.

## APHANISTES SP. (1)

Host: Unidentified noctuid.

Locality: Melrose, Mass.

Adults: June.

Number per host: One.

Generations: One.

Hibernation: In host pupa.

## APHANISTES SP. (2)

Host: *Datana integerrima* G. and R.

Localities: Blackwell's Mills and Bound Brook, N.J.

Adults: July and August.

Number per host: One.

Generations: One.

Hibernation: In host pupa.

## APHANISTES SP. (3)

Host: *Phigalia titea* Cram.

Locality: Garrison, N.Y.

Adults: May.

Number per host: One.

Generations: One.

Hibernation: In host pupa.

## THERION FUSCIPENNIS NORT.

Host: *Acronycta impressa* Walk.

Locality: Bangor, Maine.

Adults: Late July to August.

Number per host: One.

Generations: One.

Hibernation: In host pupa.

## THERION MORIO FAB.

Hosts: *Halisidota maculata* Harr., *Diacrisia virginica* Fab., *Estigmene acrea* Dru., *Cycnia inopinatus* Hy. Edw., unidentified noctuid.

Localities: Bangor, Maine; Concord and Lebanon, N.H.; Athol, Lynnfield, Millis, and Vineyard Haven, Mass.; Carthage and Greene, N.Y.; Flemington, Hillsboro, Manville, Princeton, Rutherford, Somerville, and South Branch, N.J.; and New Milford and Rush, Pa.

Adults: June to July, and August to September.

Number per host: One.

Generations: One, and sometimes a partial second.

Hibernation: In host pupa.

## THERION PETIOLATUM DAVIS

Host: *Trachea turbulenta* Hbn.  
 Localities: Falmouth, Mass.; and Westerly, R.I.  
 Adults: July.  
 Number per host: One.  
 Generations: One.  
 Hibernation: In host pupa.

## THERION SASSACUS VIER.

Hosts: *Hyphantria cunea* Dru., *Cycnia inopinatus* Hy. Edw.  
 Localities: Bath, Burnham, Franklin, and Sandypoint, Maine; Middlesex, Vt.; Athol, Greenfield, and Worcester, Mass.; Westerly, R.I.; Cranberry Lake, Greycourt, and Setauket, N.Y.; and Bound Brook, Branchburg, Bridgewater, and South Brunswick, N.J.  
 Adults: Middle of June to August.  
 Number per host: One.  
 Generations: One, though sometimes two in southern part of area.  
 Hibernation: In host pupa.

## THERION SP.

Host: *Halisidota tessellaris* S. and A.  
 Localities: Frankfort, Maine; Leicester, Mass.; and Chazy, N.Y.  
 Adults: July.  
 Number per host: One.  
 Generations: One.  
 Hibernation: In host pupa.

## THERION WACCAGUM VIER.

Hosts: *Cycnia tenera* Hbn., *C. inopinatus* Hy. Edw.  
 Locality: Bridgewater, N.J.  
 Adults: June and August.  
 Number per host: One.  
 Generations: Two.  
 Hibernation: In host pupa.

## TRIBE CAMPOPLEGINI

## CAMPOPLEGIDEA DIVERSUS NORT.

Hosts: *Graptolitha* sp., Unidentified noctuid.  
 Localities: Danvers, Mass.; and Bridgewater, N.J.  
 Adults: May and June.  
 Number per host: One.  
 Generations: One.  
 Hibernation: In the cocoon.

## CAMPOPLEGIDEA VARIABILIS FRNKL.

Host: *Synchlora rubrifrontaria* Pack.  
 Locality: Hampden, Maine.  
 Adults: July and August.  
 Number per host: One.  
 Generations: One.  
 Hibernation: In the cocoon.

## CAMPOPLEGIDEA SP. (1)

Host: *Isia isabella* S. and A.  
 Locality: Melrose, Mass.  
 Adults: June (from hosts collected in October).  
 Number per host: One.  
 Generations: Number not known.  
 Hibernation: As larva in host larva.

## CAMPOPLEGIDEA SP. (2)

Host: *Pheosia rimosa* Pack.

Locality: Kingsbury, Maine.

Adults: June and July (from hosts collected in early September).

Number per host: One.

Generations: Number not known.

Hibernation: In the cocoon.

## CAMPOPLEGIDEA SP. (3)

Host: *Bapta semiclarata* Walk.

Locality: Hinsdale, Mass.

Adults: June and July.

Number per host: One.

Generations: One.

Hibernation: In the cocoon.

## CAMPOPLEGIDEA (VIERECKIANA) VITTICOLLIS NORT.

Hosts: *Malacosoma disstria* Hbn., *Phigalia titea* Cram.

Localities: Worcester, Mass.; Armonk, N.Y.; and Bridgewater and Mendham, N.J.

Adults: May and July (issued in July from hosts collected in early June).

Number per host: One.

Generations: At least two.

Hibernation: Method not known.

## CASINARIA ORGYIAE HOW.

Hosts: *Hyphantria cunea* Dru., *Hemerocampa leucostigma* S. and A., *Olene basiflava* † Pack.

Localities: Everett, Mass.; Ledyard, Manchester, and Yalesville, Conn.; Unadilla, N.Y.; and Bound Brook, N.J.

Adults: May to June, and July to September.

Number per host: One.

Generations: Two, possibly three.

Hibernation: As larva in host larva.

## CASINARIA SP., NEAR EUPITHECIAE VIER.

Host: *Physostegania pustularia* Guen.

Locality: Lunenburg, Mass.

Adults: May, and late June to July (adults issued late June from hosts collected late in May).

Number per host: One.

Generations: At least two.

Hibernation: Method not known.

## CASINARIA, N.SP.

Host: Unidentified geometrid.

Locality: Moultonboro, N.H.

Adults: May (from hosts collected the previous September).

Number per host: One.

Generations: Probably two (?).

Hibernation: In the cocoon.

## NEONORTONIA MAJOR CRESS.

Hosts: Unidentified nymphalid, *Hyphantria cunea* Dru., *Estigmene acrea* Dru., unidentified arctiid.

Localities: Gorham and Ogunquit, Maine; Swainboro, N.H.; Middlesex, Vt.; and Worcester, Mass.

Adults: July, August, and September.

Number per host: One.

Generations: Two.

Hibernation: Method not known.

## HYPOSOTER ANNULIPES CRESS.

Hosts: *Pyrrhia umbra* Huf., *Catocala antinympha* Hbn., unidentified *Catocala*.  
 Localities: Bucksport and Old Town, Maine; and Lynnfield and Melrose, Mass.  
 Adults: Late May to June and July to August.

Number per host: One.

Generations: At least two.

Hibernation: Method not known.

## HYPOSOTER CLISIOCAMPÆ WEED

Hosts: *Datana perspicua* G. and R., *Schizura concinna* S. and A., *Hemerocampa leucostigma* S. and A., *Malacosoma americana* Fab., *M. disstria* Hbn., *Alsophila pometaria* Harr.

Localities: Hermon, Maine; Exeter and Sandwich, N.H.; Harwich and Saugus, Mass.; Putnam, Conn.; Tully and Watertown, N.Y.; and Bound Brook, Bridgewater, Franklin, Hillsboro, Newark, Morristown, North Branch, Princeton, and South Brunswick, N.J.

Adults: Late April to May and June to July.

Number per host: One.

Generations: Two.

Hibernation: In the cocoon.

## HYPOSOTER FLAVIPES PROV.

Hosts: *Phigalia titea* Cram., *Erannis tiliaria* Harr., *Ennomos subsignarius* Hbn..

Localities: Bedford, Lunenburg, and Melrose, Mass.; and Westport, N.Y.

Adults: May, and June to July.

Number per host: One.

Generations: At least two.

Hibernation: Method not known.

## HYPOSOTER FUGITIVUS SAY

Hosts: *Automeris io* Fab., *Hemileuca maia* Dru. or *lucina* Hy. Edw., *Anisota stigma* Fab., *A. senatoria* S. and A., *Hyphantria cunea* Dru., *Euchaetias egle* Dru., *Datana ministra* Dru., *Schizura concinna* S. and A., *Malacosoma americana* Fab..

Localities: Many in New England, New York, and New Jersey.

Adults: May to October.

Number per host: One.

Generations: Two or three.

Hibernation: Method not known.

## HYPOSOTER PALLIPES PROV.

Hosts: *Notolophus antiqua* L. and *Hemerocampa leucostigma* S. and A.

Localities: Melrose and Revere, Mass.; and Elizabeth, N.J.

Adults: May and June.

Number per host: One.

Generations: One.

Hibernation: In the cocoon.

## HYPOSOTER PARORGYIAE VIER.

Host: *Olene atomaria* Walk.

Locality: Marshfield, Mass.

Adults: Late May to June (from hibernating hosts collected in March).

Number per host: One. (Cocoon is formed within host larval skin.)

Generations: Number not known.

Hibernation: As immature larva in host larva.

## HYPOSOTER PIOSULUS PROV.

Hosts: *Diacrisia virginica* Fab., *Hyphantria cunea* Dru., *Euchaetias egle* Dru., unidentified Arctiidae.

Localities: Many in Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, and New Jersey.

Adults: June to October.

Number per host: One. (Cocoon is formed within host larval skin.)

Generations: At least two.

Hibernation: Method not known.

#### HYPOSOTER RUBIGINOSUS CUSH.

Hosts: *Olene atomaria* Walk., *O. basiflava* Pack.

Localities: Melrose, Rochester, and Saugus, Mass.; and Griswold and Stonington, Conn.

Adults: July and August.

Number per host: One. (Cocoon is formed inside of host larval skin.)

Generations: One.

Hibernation: As immature larva in host larva.

#### HYPOSOTER, N.SP. (1)

Host: *Polygonia interrogationis* Fab.

Locality: Horseheads, N.Y.

Adults: May (from hosts collected the previous August).

Number per host: One.

Generations: Apparently two.

Hibernation: In the cocoon.

#### HYPOSOTER, N.SP. (2)

Host: *Hamadryas milberti* Godt.

Locality: Dansville, N.Y.

Adults: May (from hosts collected previous August).

Number per host: One.

Generations: Apparently two.

Hibernation: In the cocoon.

#### HYPOSOTER, N.SP. (3)

Host: *Hamadryas antiopa* L.

Localities: Freeport, Maine; Rochester, N.H.; Middlebury, Norwich, and Waitsfield, Vt.; Bedford, Melrose, Sandwich, Sherborn, and Wellesley, Mass.; Cranberry Lake, N.Y.; and Bound Brook and Readington, N.J.

Adults: Late April to May, and August.

Number per host: One.

Generations: One, occasionally a partial second in southern part of area.

Hibernation: In the cocoon.

#### HYPOSOTER, N.SP., NEAR GEOMETRAE ASHM.

Host: *Cingilia catenaria* Dru.

Localities: Lunenburg, Sherborn, and Sudbury, Mass.; and Westerly, R.I.

Adults: September and October (from hosts collected in June and July).

Number per host: One.

Generations: Apparently two.

Hibernation: Method not known.

#### SAGARITIS DUBITATUS CRESS.

Hosts: *Cynthia atlanta* L., *Ceramica picta* Harr.

Localities: Portland, Maine; and Gleasondale and Woburn, Mass.

Adults: July and August (from hosts collected in June).

Number per host: One.

Generations: At least two.

Hibernation: Method not known.

#### CAMPOPLEX SP.

Host: *Cynthia atlanta* L.

Localities: Arlington and Saugus, Mass.

Adults: June to September.

Number per host: One.

Generations: At least two.

Hibernation: Method not known.

#### EULIMNERIA VALIDA CRESS.

Hosts: *Cycnia tenera* Hbn., *Isia isabella* S. and A., *Hyphantria cunea* Dru., *Euchaetis egle* Dru., *Melalopha inclusa* Hbn., *M. strigosa* Grt., *Schizura concinna* S. and A., *Hemerocampa leucostigma* S. and A., *Malacosoma americana* Fab., *Calocalpe undulata* L.

Localities: Many in New England, New York, and New Jersey.

Adults: May to July (from overwintering cocoons) and late June to September.

Number per host: One.

Generations: Usually two, though sometimes only one.

Hibernation: In the cocoon.

#### BENJAMINIA EUPHYDRYADIS VIER.

Hosts: *Euphydryas phaeton* Dru., *Lemonias harrisii* Scud.

Localities: Canton, Reading, and Saugus, Mass.

Adults: Late June to early August.

Number per host: One.

Generations: One (?).

Hibernation: Possibly as larva within host larva.

#### TRIBE BANCHINI

##### BANCHUS FLAVESCENS CRESS.

Host: *Barathra curialis* Smith.

Locality: Frenchville, Maine.

Adults: Late May and June (from hosts collected as larvae the previous August).

Number per host: One.

Generations: Number not known.

Hibernation: In the cocoon.

##### BANCHUS FLAVOVARIEGATUS PROV.

Host: *Polia legitima* Grt.

Locality: Charleston, Maine.

Adults: Late June (host larvae collected the previous August).

Number per host: One.

Generations: Probably one.

Hibernation: In the cocoon.

#### FAMILY CHALCIDIDAE

##### BRACHYMERIA OVATA SAY

Host: *Hemerocampa leucostigma* S. and A.

Localities: Brooklyn, N.Y.; and Camden and Trenton, N.J.

Adults: July to October.

Number per host: One.

Generations: At least two.

Hibernation: Method not known.

##### SPILOCHALCIS MARIAE RILEY

Hosts: *Samia walkeri advena* Pack., *Platysamia cecropia* L., *Callosamia promethea* Dru.

Localities: Cranbury, Rutherford, Sayreville, also vicinity of Orange and North Brunswick, N.J.

Adults: June and July.

Number per host: As many as 57.

Generations: One.

Hibernation: In host pupa.

## FAMILY ENCYRTIDAE

## BERECYNTUS SP.

Hosts: *Sidemia devastator* Brace, unidentified Noctuidae.

Localities: Melrose, Mass. and vicinity.

Adults: July.

Number per host: Many.

Generations: Number not known.

Hibernation: Method not known.

## COPIDOSOMA TRUNCATELLUM DALM.

Host: *Autographa brassicae* Riley.

Localities: Blackwell's Mills, Cranbury, and Somerville, N.J.

Adults: July and August, and September to November.

Number per host: Many.

Generations: Number not known.

Hibernation: Method not known.

## FAMILY PTEROMALIDAE

## DIBRACHYS HEMEROCAMPÆ GIR.

Hosts: *Papilio ajax* L., *Estigmene acrea* Dru., *Hemerocampa leucostigma* S. and A.

Localities: Melrose, Mass.; Brooklyn, N.Y.; and Camden, Somerville, and Trenton, N.J.

Adults: June to September.

Number per host: Many.

Generations: Two, possibly three.

Hibernation: In host pupa. This species is often a hyperparasite.

## COELOPISTHOIDEA, N.SP.

Host: *Cynthia cardui* L.

Locality: Bridgewater, N.J.

Adults: September (from hosts collected in July).

Number per host: Several, approximately 10.

Generations: Apparently at least two.

Hibernation: Method not known.

## PSYCHOPHAGUS OMNIVORUS WALK.

Hosts: *Diacrisia virginica* Fab., *Estigmene acrea* Dru., *Utetheisa bella* L., unidentified *Catocala*, *Melalopha inclusa* Hbn., *Datana ministra* Dru., *Hemerocampa leucostigma* S. and A., *Cnidocampa flavescens* Walk.

Localities: Bangor and Moro, Maine; Sandwich, N.H.; Dorchester, Manchester, Melrose, and Saugus, Mass.; Westerly, R.I.; Brooklyn, N.Y.; and Bridgewater, Cranbury, Somerville, Trenton, and Washington, N.J.

Adults: June to July, and July to October.

Number per host: From 4 to 90.

Generations: Probably from 1 to 3.

Hibernation: In host pupa. This species is often a hyperparasite.

## PTEROMALUS ARCHIPPI How.

Hosts: *Papilio ajax* ‡ L., *Basilarchia archippus* Cram., *B. artemis astyanax* Fab.

Localities: Wilmot, N.H.; Graniteville, Vt.; and Rutherford, N.J.

Adults: June and July.

Number per host: Many.

Generations: Two, possibly more.

Hibernation: In host pupa.

## PTEROMALUS PUPARUM L.

Hosts: *Ascia rapae* ‡ L., *Hamadryas antiopa* L., unidentified nymphalid.

Localities: Wallagrass, Maine; Charlotte, Vt.; North Andover and Worcester, Mass.; and Elizabeth and Princeton, N.J.

Adults: June to October.  
 Number per host: Many.  
 Generations: At least two.  
 Hibernation: In host pupa.

#### PTEROMALUS PUPARUM VAR VANESSAE HARR.

Host: *Papilio ajax* L.  
 Localities: Hampden, Maine; and Westerly, R.I.  
 Adults: June and September.  
 Number per host: Many.  
 Generations: At least two.  
 Hibernation: In host pupa.

#### FAMILY EULOPHIDAE

##### COMEDO ANOMOCERUS Cwfd.

Host: *Schizura unicornis* S. and A.  
 Locality: Manchester, Conn.  
 Adults: June to August.  
 Number per host: Many.  
 Generations: At least two.  
 Hibernation: Method not known.

##### COMEDO BREVICAPITATUS C. AND D.

Host: Unidentified noctuid.  
 Locality: Stoneham, Mass.  
 Adults: Middle of August (from host collected August 5.)  
 Number per host: 16.  
 Generations: At least two.  
 Hibernation: Method not known.

##### COMEDO HOOKERI Cwfd.

Host: *Graptolitha* sp.  
 Locality: Ayer, Mass.  
 Adults: July (from hosts collected June 13.)  
 Number per host: Many.  
 Generations: At least two.  
 Hibernation: Method not known.

##### COMEDO SMERINTHI ASHM.

Host: *Amphipyra pyramidoides* Guen.  
 Localities: Hampton, N.H.; and Lynnfield, Mass.  
 Adults: July (from hosts collected in June.)  
 Number per host: Many.  
 Generations: At least two.  
 Hibernation: Method not known.

##### COMEDO SP. (1)

Hosts: *Cynthia atlanta* L., *Graptolitha* sp., *Acronycta furcifera* Guen. *Cerura* sp.  
 Localities: Ashburnham, Auburn, and Melrose, Mass.; and Mendham, N.J.  
 Adults: June to September.  
 Number per host: Many.  
 Generations: Two, possibly more.  
 Hibernation: Method not known.

##### COMEDO SP. (2)

Host: *Hemerocampa definita* Pack.  
 Locality: Warwick, Mass.  
 Adults: May (from hosts collected the previous August.)  
 Number per host: Many.  
 Generations: At least two.  
 Hibernation: As pupa.

## EUPLECTRUS SP.

Host: *Ennomos subsignarius* Hbn.

Locality: Northboro, Mass.

Adults: July (from hosts collected in June.)

Number per host: Many.

Generations: At least two.

Hibernation: Method not known.

## ELACHERTUS HYPHANTRIAE CWFD.

Hosts: *Hyphantria cunea* Dru., *Hemerocampa definita* Pack.

Localities: Greenport, N.Y.; and Piscataway, N.J.

Adults: July and August.

Number per host: Many.

Generations: Two.

Hibernation: As pupa.

## ELACHERTUS MARYLANDICUS GIR.

Hosts: *Diacrisia virginica* Fab., *Hyphantria cunea* Dru., unidentified arctiid.

Localities: Worcester, Mass.; Manchester, Conn.; and Patterson, Piscataway, and Somerville, N.J.

Adults: June to July, and August to September.

Number per host: Many.

Generations: Two.

Hibernation: As pupa.

# INDEX

	Page		Page
<i>Abbottana clementaria</i>	101	<i>Amblytelini</i>	139
<i>Abrostola urentis</i>	70	<i>Ampeloeeca myron</i>	23
<i>Achaetoneura</i> —		<i>Amphidasis cognataria</i>	96
<i>aletiae</i>	116	<i>Amphon nessus</i>	25
<i>anisotae</i>	116	<i>Amphyipyra pyramidoides</i>	52
<i>archippivora</i>	116	<i>Anacamptodes</i> —	
<i>cuculliae</i>	116	<i>ephyraria</i>	95
<i>euchaetiae</i>	116	<i>larvaria</i>	95
<i>frenchii</i>	117	<i>vellivolata</i>	94
<i>melalophae</i>	117	<i>Anachaetopsis tortricis</i>	107
near (n.sp.)	117	<i>Anetia</i> —	
new species	117	<i>eufitchiae</i>	120
<i>piperi</i>	117	<i>hyphantriae</i>	120
<i>samiae</i>	61	<i>species (complex)</i>	120
<i>Achatodes zea</i>		<i>Anisota</i> —	
<i>Acronycta</i> —		<i>rubicunda</i>	30
<i>americana</i>	57	<i>senatoria</i>	29
<i>betulae</i>	58	<i>stigma</i>	29
<i>clarescens</i>	54	<i>virginiensis</i>	30
<i>dactylina</i>	58	<i>Apanteles</i> —	
<i>fragilis</i>	54	<i>acronyctae</i>	129
<i>funeralis</i>	56	<i>ammalonis</i>	129
<i>furcifera</i>	55	<i>anisotae</i>	129
<i>grisea</i>	56	<i>argynnidis</i>	129
<i>haesitata</i>	54	<i>atalantae</i>	129
<i>impleta</i>	55	<i>ceruriae</i>	129
<i>impressa</i>	58	<i>charadrae</i>	129
<i>inclara</i>	55	<i>cingiliae</i>	129
<i>innotata</i>	57	<i>clisiocampae</i>	130
<i>interrupta</i>	56	<i>congregatus</i>	130
<i>lanceolaria</i>	60	<i>coxalis</i>	130
<i>leporina vulpina</i>	57	<i>delicatus</i>	130
<i>lepusculina</i>	57	<i>diacrisiae</i>	130
<i>longa</i>	59	<i>edwardsii</i>	130
<i>morula</i>	56	<i>empretiae</i>	130
<i>oblinita</i>	60	<i>euchaetis</i>	131
<i>ovata</i>	54	<i>euphydryidis</i>	131
<i>parallelia</i>	54	<i>fisheri</i>	131
<i>radcliffei</i>	56	<i>glomeratus</i>	131
<i>rubricoma</i>	59	<i>gordii</i>	131
<i>species</i>	60	<i>griffini</i>	131
<i>sperata</i>	59	<i>hadeneae</i>	131
<i>superans</i>	55	<i>halisidotae</i>	132
<i>Actias luna</i>	27	<i>hemileucae</i>	132
<i>Actia</i> —		<i>hesperidivorus</i>	132
<i>species</i>	107	<i>hydriae</i>	132
<i>species, near palloris</i>	107	<i>hyphantriae</i>	132
<i>Agaristidae</i>	41	<i>limenitidis</i>	132
<i>Agriopodes fallax</i>	54	<i>longicornis</i>	132
<i>Agrotis</i> —		<i>lunatus</i>	133
<i>clandestina (unicolor)</i>	43	<i>lyciae</i>	133
<i>c-nigrum</i>	42	<i>melanoscelus</i>	133
<i>fennica</i>	43	<i>militaris</i>	133
<i>haruspica</i>	43	<i>murtfeldtae</i>	133
<i>smithii</i>	43	<i>nemoriae</i>	133
<i>ypsilon</i>	42	<i>nigricornis</i>	133
<i>Aleiodinae</i>	126	<i>noctuidiphagus</i>	134
<i>Allocota thyridopterigis</i>	141	<i>new species</i>	135-136
<i>Alsophila pometaria</i>	90	<i>new species, near ceruriae</i>	136
<i>Alypia octomaculata</i>	41	<i>new species, near compressus</i>	136
<i>Amblyteles</i> —		<i>new species, near glomeratus</i>	135
<i>brevicinctor</i>	139	<i>paleacratae</i>	134
<i>caliginosus</i>	139	<i>phigaliae</i>	134
<i>centrator</i>	139	<i>phobetri</i>	134
<i>cincticornis</i>	139	<i>pyrophilae</i>	134
<i>ctenuchae</i>	139	<i>sarrothripae</i>	134
<i>laetus</i>	139	<i>schaffneri</i>	134
<i>propitius</i>	139	<i>schizurae</i>	135
<i>pullatus</i>	140	<i>smerinthi</i>	135
<i>rufiventris</i>	140	<i>species</i>	136
<i>species, near centrator</i>	139	<i>teleae</i>	135
<i>species, near versabilis</i>	140	<i>Apantesis</i> —	
<i>sublatus</i>	140	<i>arge</i>	39
<i>unifasciatorius</i>	140	<i>doris</i>	38
<i>versabilis</i>	140	<i>intermedia</i>	38
<i>viola</i>	140	<i>virgo</i>	38

	Page		Page
<i>Apateodes</i> —		<i>Catocala</i> —Continued.	
<i>angelica</i>	88	<i>habilis</i>	64
<i>torrefacta</i>	87	<i>ilia</i>	65
<i>Apechthis picticornis</i>	142	<i>micronympha fratercula</i>	67
<i>Aphanistes</i> —		<i>minuta</i>	66
<i>hyalinus</i>	147	<i>neogama</i>	65
<i>nigrorufus</i>	147	<i>parta</i>	65
<i>species</i>	147	<i>piatrix</i>	64
<i>Archytas</i> —		<i>polygama</i>	66
<i>aterrima</i>	125	<i>relicta</i>	65
<i>metallica</i>	125	<i>ultronia</i>	66
<i>species, near metallica</i>	125	<i>unijuga</i>	66
<i>Arctia caja americana</i>	39	<i>Catocalinae</i> (miscellaneous species)	67
<i>Arctiidae</i>	32	<i>Celama triquetra</i>	32
<i>Arctiidae</i> (miscellaneous species)	40	<i>Ceramica picta</i>	47
<i>Arzama obliqua</i>	62	<i>Ceratocampidae</i>	29
<i>Ascia rapae</i>	7	<i>Ceratomia</i> —	
<i>Ascidiae</i>	7	<i>amynthor</i>	17
<i>Asterocampa clyton</i>	14	<i>catalpae</i>	17
<i>Atethmia pampina</i>	52	<i>undulosa</i>	17
<i>Aubaeanaetia assimilis</i>	120	<i>Ceromasia</i> —	
<i>Autographa</i> —		<i>rutilia</i>	119
<i>alias</i>	69	<i>senilis</i>	119
<i>biloba</i>	70	<i>species</i>	119
<i>brassicae</i>	69	<i>Cerura</i> —	
<i>falcifera</i>	69	<i>cinerea</i>	82
<i>Automeris io</i>	28	<i>occidentalis</i>	82
<i>Azelina anceps</i>	101	<i>species</i>	83
<i>Bagisara rectifascia</i>	62	<i>Chaetogaedia analis</i>	125
<i>Balsa malana</i>	61	<i>Chaetophlepsis</i> —	
<i>Banchini</i>	152	<i>orbitalis</i>	107
<i>Banchus</i> —		<i>species</i>	108
<i>flavescens</i>	152	<i>tarsalis</i>	108
<i>flavovariegatus</i>	152	<i>Chalcididae</i>	152
<i>Bapta</i> —		<i>Charadra deridens</i>	69
<i>semiclarata</i>	93	<i>Chromocryptus nebraskensis</i>	141
<i>vestaliata</i>	93	<i>Chrysotachina alcedo</i>	111
<i>Barathra curialis</i>	44	<i>Chutapha periculosa</i>	54
<i>Basilarchia</i> —		<i>Cicinnus melsheimeri</i>	102
<i>archippus</i>	13	<i>Cingilia catenaria</i>	98
<i>arthemis</i>	13	<i>Cirphis</i> —	
<i>arthemis astyanax</i>	13	<i>commoides</i>	47
<i>Belvosia</i> —		<i>pseudargyria</i>	47
<i>bifasciata</i>	109	<i>unipuncta</i>	47
<i>townsendi</i>	109	<i>Citheronia regalis</i>	31
<i>unifasciata</i>	109	<i>Cnidocampa flavescens</i>	104
<i>Benjaminia euphydryadis</i>	152	<i>Cochlidiiidae</i> (miscellaneous species)	106
<i>Berecyntus</i> sp	153	<i>Coelopisthoidea</i> , n. sp.	153
<i>Blepharigena spinosula</i>	108	<i>Colocasia propinquilinea</i>	69
<i>Blepharipeza</i> —		<i>Comedo</i> —	
<i>adusta</i>	121	<i>anomocerus</i>	154
<i>exul</i>	121	<i>brevicapitatus</i>	154
<i>fulvipes</i>	122	<i>hookeri</i>	154
<i>leucophrys</i>	122	<i>smerinthi</i>	154
<i>Bombyliidae</i>	106	<i>species</i>	154
<i>Bombyliomyia abrupta</i>	125	<i>Compsilura concinnata</i>	2, 115
<i>Brachymeria ovata</i>	152	<i>Conistra</i> —	
<i>Braconidae</i>	126	<i>devia</i>	51
<i>Brephos infans</i>	90	<i>indirecta</i>	51
<i>Cabera erythremaria</i>	93	<i>morrisoni</i>	50
<i>Callopistria monetifera</i>	54	<i>sidus</i>	50
<i>Callosamia promethea</i>	27	<i>species</i>	50
<i>Calocalpe undulata</i>	91	<i>Copidosoma truncatellum</i>	153
<i>Calpe canadensis</i>	70	<i>Cosmia canescens</i>	62
<i>Campaea praegrandaria</i>	99	<i>Cosymbia lumenaria</i>	91
<i>Campoplegidae</i> —		<i>Cressonia juglandis</i>	22
<i>diversus</i>	148	<i>Cryptinae</i>	141
<i>species</i>	148-149	<i>Cryptini</i>	141
<i>variabilis</i>	148	<i>Ctenucha virginica</i>	32
<i>vitticollis</i>	149	<i>Cucullia convexipennis</i>	48
<i>Campoplegini</i>	148	<i>Cycnia</i> —	
<i>Campoplex</i> sp	151	<i>inopinatus</i>	33
<i>Caripeta angustiorata</i>	94	<i>tenera</i>	32
<i>Cartocometes io</i>	107	<i>Cynthia</i> —	
<i>Casinaria</i> —		<i>atalanta</i>	12
<i>orgyiae</i>	149	<i>cardui</i>	13
<i>new species</i>	149	<i>virginiensis huntera</i>	12
<i>species, near eupitheciae</i>	149	<i>Cyrtophloeba coquilletti</i>	108
<i>Catocala</i> —		<i>Danaidae</i>	8
<i>a matrix nurus</i>	66	<i>Danaus menippe</i>	8
<i>ant nympha</i>	64	<i>Darapsa pholus</i>	24
<i>badia</i>	64	<i>Dasylophia anguina</i>	78
<i>briseis</i>	66	<i>Datana</i> —	
<i>coccinata</i>	66	<i>angusii</i>	74
<i>concumbens</i>	66	<i>contracta</i>	76
<i>epione</i>	64	<i>integerrima</i>	76
<i>flebilis</i>	65	<i>major</i>	75

	Page		Page
<i>Datana</i> —Continued.		<i>Glypta</i> —	
<i>ministra</i> .....	74	<i>erratica</i> .....	142
<i>perspicua</i> .....	75	<i>simplicipes</i> .....	142
<i>Deidamia inscriptum</i> .....	24	<i>Glyptini</i> .....	142
<i>Dexodes aurifrons</i> .....	120	<i>Gonia</i> —	
<i>Diacrisia virginica</i> .....	36	<i>sagax</i> .....	124
<i>Dibrachys hemerocampae</i> .....	153	<i>species</i> .....	124
<i>Diptera</i> .....	3, 106	<i>Graptolitha</i> —	
<i>Dryas cybele</i> .....	8	<i>antennata</i> .....	49
<i>Eacles imperialis</i> .....	31	<i>bailyi</i> .....	49
<i>Epantheria deflorata</i> .....	38	<i>disposita</i> .....	48
<i>Ecropis crepuscularia</i> .....	95	<i>ferrealis</i> .....	49
<i>Elachertus</i> —		<i>hemina</i> .....	49
<i>hyphantriae</i> .....	155	<i>innominata</i> .....	48
<i>marylandicus</i> .....	155	<i>petulca</i> .....	48
<i>Ellopia fiscellaria</i> .....	99	<i>tepida</i> .....	50
<i>Encyrtidae</i> .....	153	<i>thaxteri</i> .....	50
<i>Enicospilus</i> —		<i>unimoda</i> .....	49
<i>purgatus</i> .....	144	<i>Gymnophthalma americana</i> .....	107
<i>purgatus arcuatus</i> .....	144	<i>Habronyx</i> sp.....	145
<i>Ennomos</i> —		<i>Halisdota</i> —	
<i>magnarius</i> .....	100	<i>caryae</i> .....	33
<i>subsignarius</i> .....	99	<i>harrisi</i> .....	34
<i>Epalpus signifera</i> .....	125	<i>maculata</i> .....	33
<i>Epargyreus tityrus</i> .....	15	<i>species</i> .....	35
<i>Ephialtes</i> —		<i>tessellaris</i> .....	34
<i>aqualis</i> .....	142	<i>Hamadryas</i> —	
( <i>Itoplectis</i> ) <i>conquisitor</i> .....	142	<i>antiopa</i> .....	11
<i>pedalis</i> .....	142	<i>j-album</i> .....	10
<i>Ephialtini</i> .....	142	<i>milberti</i> .....	11
<i>Epicnaptera americana</i> .....	89	<i>Haploa</i> —	
<i>Epiglaea apia</i> .....	50	<i>clymene</i> .....	40
<i>Epiurus nigritrons</i> .....	143	<i>lecontei</i> .....	40
<i>Epizeuxis americanus</i> .....	71	<i>lecontei militaris</i> .....	40
<i>Erannis tiliaria</i> .....	97	<i>Heliothis obsoleta</i> .....	41
<i>Eremotylus</i> —		<i>Hemaris</i> —	
<i>macrurus</i> .....	144	<i>dissinis</i> .....	23
new species.....	144	<i>thysbe</i> .....	22
<i>Eriopyga</i> —		<i>Hemerocampa</i> —	
<i>cynica</i> .....	45	<i>definita</i> .....	85
<i>vecors</i> .....	46	<i>leucostigma</i> .....	85
<i>Ernestia</i> —		<i>Hemileuca</i> —	
<i>ampelus</i> .....	109	<i>lucina</i> .....	29
species (? <i>arcuata</i> ).....	109	<i>mai</i> .....	29
species (? <i>bicarina</i> ).....	111	<i>Hemitelini</i> .....	141
species.....	109–111	<i>Hesperiidae</i> .....	15
<i>Erynnis</i> —		<i>Heterocampa</i> —	
<i>horatius</i> .....	15	<i>bilineata</i> .....	80
<i>icelus</i> .....	15	<i>biundata</i> .....	79
<i>juvenalis</i> .....	15	<i>guttivitta</i> .....	79
<i>Estigmene acrea</i> .....	38	<i>manteo</i> .....	79
<i>Eubaphe opella belmaria</i> .....	35	<i>umbrata</i> .....	79
<i>Euchaetias</i> —		<i>Heteropelma</i> —	
<i>egle</i> .....	39	<i>datanae</i> .....	145
<i>oregonensis</i> .....	39	<i>flavicone</i> .....	145
<i>Euclea delphinii</i> .....	104	<i>Hoplismenus morulus</i> .....	141
<i>Eucleidae</i> .....	103	<i>Hyloicus</i> —	
<i>Eufidonia notataria</i> .....	93	<i>canadensis</i> .....	18
<i>Eugonobapta nivosaria</i> .....	99	<i>chersis</i> .....	18
<i>Eulimneria valida</i> .....	152	<i>drupiferarum</i> .....	20
<i>Eulophidae</i> .....	154	<i>eremitus</i> .....	18
<i>Eulype hastata</i> .....	92	<i>gordius</i> .....	19
<i>Eumasicerca</i> —		<i>kalmiae</i> .....	18
species, near <i>sternalis</i> .....	119	<i>luscitiosa</i> .....	19
<i>sternalis</i> .....	119	<i>Hymenoptera</i> .....	126
<i>Eumichtis ducta</i> .....	50	<i>Hyperaeschra stragula</i> .....	76
<i>Euparthenos nubilis</i> .....	68	<i>Hyperitis amicaria</i> .....	100
<i>Euphydryas phaeton</i> .....	9	<i>Hyphantria cunea</i> .....	37
<i>Euplectrus</i> sp.....	155	<i>Hypoprepia fucosa</i> .....	32
<i>Euplexia exoticata</i> .....	53	<i>Hyposoter</i> —	
<i>Eupogona obscura</i> .....	124	<i>annulipes</i> .....	150
<i>Eupterotidae</i> .....	87	<i>clisiocampae</i> .....	150
<i>Euptoieta claudia</i> .....	8	<i>flavipes</i> .....	150
<i>Eurycytarus confederata</i> .....	103	<i>fugitivus</i> .....	150
<i>Euthisanotia grata</i> .....	63	new species.....	151
<i>Euxoa</i> —		new species, near <i>geometrae</i> .....	151
<i>messoria</i> .....	42	<i>palipes</i> .....	150
<i>ochrogaster</i> .....	42	<i>parorgyiae</i> .....	150
<i>tessellata</i> .....	42	<i>pilosulus</i> .....	150
<i>Exorista mella</i> .....	120	<i>rubiginosus</i> .....	151
<i>Feltia volubilis</i> .....	42	<i>Hyppa xylinoides</i> .....	61
<i>Fentonnia marthesia</i> .....	83	<i>Hyssia modesta</i> .....	45
<i>Geometridae</i> .....	90	<i>Ianassa lignicolor</i> .....	80
<i>Geometridae</i> (miscellaneous species).....	102	<i>Ichneumonidae</i> .....	138
<i>Glaphisia septentrionalis</i> .....	83	<i>Ichneumoninae</i> .....	141
		<i>Ichneumonini</i> .....	143

	Page		Page
<i>Ictericophyto spinosa</i>	106	<i>Nerice bidentata</i>	78
<i>Iseropus coelebs</i>	143	<i>Noctuidae</i>	41
<i>Isia isabella</i>	36	<i>Noctuidae (miscellaneous species)</i>	72
<i>Itame ribearia</i>	94	<i>Notodontidae</i>	77
<i>Joppinae</i>	138	<i>Notodontidae</i>	72
<i>Joppini</i>	138	<i>Notolophus antiqua</i>	84
<i>Labrorychus</i> —		<i>Nycteola revayana</i>	63
<i>analis</i>	145	<i>Nymphalidae</i>	8
<i>elongatus</i>	146	<i>Nymphalinae (miscellaneous species)</i>	14
<i>relictus</i>	146		
<i>species</i>	102		
<i>Lacosomidae</i>		<i>Olene</i> —	
<i>Lagoa crispata</i>	105	<i>atomaria</i>	86
<i>Lapara bombycoides</i>	20	<i>basiflava</i>	86
<i>Lasiocampidae</i>	88	<i>pini</i>	87
<i>Lemonias harrisii</i>	9	<i>species</i>	87
<i>Lepidoptera</i>	6	<i>Ophioninae</i>	144
<i>Linnaemyia comta</i>	109	<i>Ophionini</i>	144
<i>Liparidae</i>	84	<i>Ophion</i> spp.	145
<i>Lissonota americana</i>	141	<i>Orthosia hibisci insciens</i>	46
<i>Lissonotini</i>	141		
<i>Lithacodes fasciola</i>	105	<i>Pachysphinx modesta</i>	22
<i>Lophodonta</i> —		<i>Packardia geminata</i>	105
<i>angulosa</i>	77	<i>Paleacrita vernata</i>	97
<i>ferruginea</i>	77	<i>Paniscini</i>	143
<i>Lycaena hypophlaeas</i>	14	<i>Paniscus</i> —	
<i>Lycaenidae</i>	14	<i>geminatus</i>	143
<i>Lycia ursaria</i>	95	<i>geminatus sayi</i>	143
<i>Lycormorpha pholus</i>	31	<i>pallens</i>	143
<i>Lycophotia margaritosa</i>	43	<i>unguicularis</i>	143
<i>Lygris diversilineata</i>	92		
<i>Macaria</i> sp., near <i>granitata</i>	94	<i>Paonias</i> —	
<i>Macrocentrinae</i>	136	<i>astylus</i>	22
<i>Macrocentrus uniformis</i>	136	<i>excaecata</i>	21
<i>Macronoctua onusta</i>	53	<i>myops</i>	21
<i>Madremyia saundersii</i>	115	<i>Papaipema nebris</i>	62
<i>Malacosoma</i> —		<i>Papilio</i> —	
<i>americana</i>	88	<i>ajax (polyxenes)</i>	6
<i>dissistria</i>	89	<i>glaucus turnus</i>	7
<i>Melalopha</i> —		<i>phileenor</i>	6
<i>albosigma</i>	73	<i>troilus</i>	7
<i>apicalis</i>	72		
<i>brucei</i>	74	<i>Papilionidae</i>	6
<i>inclusa</i>	73		
<i>strigosa</i>	73	<i>Parabetes</i> —	
<i>Melanolophia canadaria</i>	95	<i>cristatoides</i>	143
<i>Melipotis jucunda</i>	70	<i>smithi</i>	144
<i>Metaplagia occidentalis</i>	108	<i>Parachaeta fusca</i>	122
<i>Meteorinae</i>	136	<i>Parallelia bistriaris</i>	68
<i>Meteorus</i> —		<i>Paraphia unipuncta</i>	94
<i>bakeri</i>	136	<i>Parasa indetermina</i>	104
<i>cingiliae</i>	136	<i>Parasemia parthenos</i>	35
<i>communis</i>	137	<i>Parastichtis bicolorago</i>	52
<i>datauae</i>	137	<i>Palatachina pellucida</i>	108
<i>hyphantriae</i>	137	<i>Prigea</i> species, near <i>selenosa</i>	53
<i>niveitarsis</i>	137	<i>Pheosia rimosa</i>	77
new species		<i>Phigalia titea</i>	97
<i>species</i>		<i>Phlegethonius</i> —	
<i>versicolor</i>		<i>quinquemaculata</i>	16
<i>vulgaris</i>		<i>sexta</i>	16
<i>Metopiini</i>		<i>Phobetron pithecium</i>	104
<i>Metopius pollinctorius</i>	144		
<i>Microgasterinae</i>	127	<i>Pholus</i> —	
<i>Microgaster</i> —		<i>achemon</i>	23
<i>schizurae</i>	127	<i>satellitia pandorus</i>	23
<i>scopelosomae</i>	127		
<i>species</i>		<i>Phorocera</i> —	
<i>Microplitis</i> —		<i>claripennis</i>	114
<i>ceratomiae</i>	127	<i>erecta</i>	114
<i>hyphantriae</i>	127	<i>leucaniae</i>	114
<i>kewleyi</i>	127	<i>longiuscula</i>	114
<i>mamestrae</i>	127	<i>pachypyga</i>	115
new species		<i>species, near Zenillia lobeliae</i>	115
<i>new species, near varicolor</i>		<i>sternalis</i>	115
<i>quadridentatus</i>		<i>Phragmatobia fuliginosa rubricosa</i>	35
<i>species</i>		<i>Physostegania pustularia</i>	93
<i>Morrisonia confusa</i>	46	<i>Plagodis serinaria</i>	100
<i>Muscina stabulans</i>	3	<i>Plathypena scabra</i>	71
<i>Nacophora queraria</i>	96	<i>Platysmia cecropia</i>	26
<i>Nadata gibbosa</i>	78	<i>Plusia aereoides</i>	70
<i>Neleucania diffusa</i>	47	<i>Plusiodonta compressipalpis</i>	71
<i>Nematocampa limbata</i>	101	<i>Poecilopsis rachelae</i>	96
<i>Neonortonia major</i>	149	<i>Polia</i> —	
<i>Nephelodes emmedonia minians</i>	46	<i>adjuncta</i>	44
		<i>assimilis</i>	45
		<i>latex</i>	44
		<i>legitima</i>	45
		<i>lutra</i>	44
		<i>subjuncta</i>	44
		<i>Polygonia</i> —	
		<i>comma</i>	
		<i>interrogationis</i>	9
		<i>progne</i>	10
		<i>Prodenia ornithogalli</i>	61

	Page		Page
<i>Prolimacodes scapha</i>	104	<i>Therion</i> —	
<i>Pseudotachinomyia webberi</i>	121	<i>fuscipennis</i>	147
<i>Pseudothyatira cymatophoroides</i>	84	<i>morio</i>	147
<i>Psilomastax vulpinus</i>	138	<i>petiolatum</i>	148
<i>Psychidae</i>	102	<i>sassacus</i>	148
<i>Psychomorpha epimenis</i>	63	<i>species</i>	148
<i>Psychophagus omnivorus</i>	153	<i>waccagum</i>	148
<i>Pteromalidae</i>	153	<i>Therionini</i>	145
<i>Pteromalus</i> —		<i>Thryptocera flavipes</i>	107
<i>archippi</i>	153	<i>Thyatiridae</i>	84
<i>puparum</i>	153	<i>Thyridopteryx ephemeraeformis</i>	102
<i>puparum vanessae</i>	154	<i>Thysanomyia</i> , near	118
<i>Pyrrhia umbra</i>	61	<i>Tolype velleda</i>	88
<i>Raphia frater</i>	70	<i>Tortricidia</i> —	
<i>Rogas</i> —		<i>caesonnia</i>	105
<i>hyphantriae</i>	126	<i>flexuosa</i>	105
<i>quebecensis</i>	126	<i>Trachea</i> —	
<i>species</i>	126–127	<i>mactata</i>	53
<i>stigmator</i>	126	<i>turbulenta</i>	52
<i>Sabulodes</i> —		<i>Trichodesia albovittata</i>	91
<i>lorata</i>	101	<i>Trogus</i> —	
<i>transversata</i>	101	<i>apicalis</i>	138
<i>Sagaritis dubitatus</i>	151	<i>brullei</i>	138
<i>Samia walkeri advena</i>	26	<i>canadensis</i>	138
<i>Saturniidae</i>	26	<i>fulvipes</i>	138
<i>Scepsis fulvicollis</i>	31	<i>nubilipennis</i>	138
<i>Schizura</i> —		<i>Tryphoninae</i>	143
<i>badia</i>	81	<i>Utetheisa bella</i>	39
<i>concinna</i>	81	<i>Villa alternata</i>	106
<i>ipomoeae</i>	80	<i>Vitrinella pampinaria</i>	94
<i>leptinoides</i>	82	<i>Voria ruralis</i>	108
<i>unicornis</i>	81	<i>Wagneria</i> —	
<i>Scoliopteryx libatrix</i>	71	<i>helymus</i>	124
<i>Scotogramma trisolii</i>	44	<i>sequax</i>	124
<i>Septis arctica</i>	52	<i>vernata</i>	124
<i>Sibine stimulea</i>	103	<i>Winthemia</i> —	
<i>Sidemia devastator</i>	53	<i>datanae</i>	122
<i>Sideridis normani</i>	46	<i>datanae</i> (varieties A, B, C, and D)	123
<i>Simyra henrici</i>	61	<i>fumiferanae</i>	122
<i>Sisyrosea textula</i>	104	( ) <i quadripustulata	122
<i>Smerinthus</i> —		<i>rufopicta</i>	123
<i>cerisyi</i>	21	<i>sinuata</i>	122
<i>geminatus</i>	20	<i>species</i>	5, 123
<i>Sphecodina abbottii</i>	24	<i>Xanthorhoe</i> —	
<i>Sphingidae</i>	16	<i>designata</i>	92
<i>Sphingidae</i> (miscellaneous species)	26	<i>lacustrata</i>	92
<i>Sphinx</i> —		<i>Xanthotype crocataria</i>	100
<i>gallii intermedia</i>	25	<i>Xylena nupera</i>	50
<i>lineata</i>	25	<i>Zale</i> —	
<i>Spilochalcis mariae</i>	152	<i>lunata</i>	68
<i>Spilocryptus</i> —		<i>undularis</i>	68
<i>extrematis</i>	141	<i>Zenillia</i> —	
<i>nuncius</i>	141	<i>affinis</i>	111
<i>Strymon melinus</i>	14	<i>amplexa</i>	111
<i>Sturmia</i> —		<i>blanda</i>	111
<i>fraudulenta</i>	118	<i>ceratomiae</i>	111
<i>incompta</i>	118	<i>eudryae</i>	112
<i>nigrita</i>	118	<i>formosa</i>	112
<i>ricinorum</i>	118	<i>futilis</i>	112
<i>scutellata</i>	118	<i>helvina</i>	112
<i>species, near bakeri</i>	118	<i>lobeliae</i>	112
<i>Symmerista albifrons</i>	78	new species	113–114
<i>Synchlora</i> —		<i>protuberans</i>	112
<i>aerata</i>	91	<i>reclinata</i>	112
<i>rubrifrontaria</i>	91	<i>virilis</i>	113
<i>Syntomidae</i>	31	<i>vulgaris</i>	113
<i>Tachinidae</i>	5, 106	near	114
<i>Tachinomyia</i> spp.	121		
<i>Telea polyphemus</i>	28		
<i>Thelaira leucozona</i>	125		

( )



